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RCRA RECORDS CENTER  
FACILITY MACDERMID, INC.  
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OTHER CONSENT TO SITE



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# **HAZARDOUS WASTE PART B PERMIT APPLICATION**

**MacDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CONNECTICUT**

**VOLUME II**

ROBA RECORDS CENTER  
FACILITY MACDERMID, INC.  
ID. NO. CTD 001164599  
FILE LOC. R-1B  
OTHER Coversized 7 Vol 2 of 2

# **HAZARDOUS WASTE PART B PERMIT APPLICATION**

**MacDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CONNECTICUT**

**VOLUME II**

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## 8.0 PERSONNEL TRAINING

[40 CFR Sections 270.14(b)(12) and 264.16]

### 8.1 Regulatory Requirements

Federal Regulations (CFR 40) specifically require owners or operators of a Hazardous Waste Management (HWM) facility to prepare an outline of introductory and continuing training programs "to prepare persons to operate or maintain the HWM facility in a safe manner". The regulatory requirements contained in 264.16 regarding employee training are as follows:

- Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this part.
- This program must be directed by a person trained in hazardous waste management procedures and shall include instructions which teach facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.
- At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:
  - o Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
  - o Key parameters for automatic waste feed cutoff systems;
  - o Communications or alarm systems;
  - o Response to fires or explosions;
  - o Response to ground water contamination incidents;
  - o Shutdown of operations; and

- o Properties and hazardous nature of the hazardous waste at the facility.
- The training document detailed in this plan includes training relevant to the actual tasks at this facility. This plan includes training in the following actual tasks at the facility:
  - o Use of personnel protective equipment;
  - o Safety measures;
  - o Manifest tracking, preparation;
  - o Sampling procedures and handling;
  - o Facility operation and maintenance;
  - o Contingency measures;
  - o Facility inspection;
  - o Regulatory requirements;
  - o Facility recordkeeping;
  - o Maintaining site security; and
  - o Prevention of fire, spill, and explosion; and
  - o familiarizes employees with the types of wastes handled at the facility and the hazards inherent in the handling of these wastes.
- Facility personnel must successfully complete the training program within six months of their assignment to the facility and must take part in an annual review of the program.
- The owner or operator must maintain documentation applicable to the training program outlined in 264.16.

## 8.2 Training Outline

The four elements of personnel training, critical to safe hazardous waste management, are as follows:

### A. PERSONNEL SAFETY TRAINING

- Hazards and characteristics of chemical wastes;

- Selection and use of protective clothing and equipment for emergency situations;
- Health effects of chemicals in the work environment.

B. EMERGENCY PLANNING

- Emergency response;
- Contingency planning.

C. FACILITY OPERATION AND MAINTENANCE

- Hazard minimization through proper facility operation and maintenance

D. MAINTAINING RECORDS

- Regulatory compliance

Activities of hazardous waste facilities personnel can be distinguished as follows:

- Routine day-to-day hazardous waste handling, storage, and treatment operations.
- Emergency response activities in accordance with site contingency plan.

Personnel engaged in either of these activities, along with on-site supervisory personnel responsible for routine day-to-day hazardous waste management must be trained in pertinent aspects of proper hazardous waste handling.

Clearly, a training program which would provide the same level of instruction to all on-site personnel is neither workable nor desirable. Training must, therefore, be correlated to job descriptions. Consequently, the individual's position and specific duties will dictate the level of personnel training he or she will receive.

In this report, three (3) types of training programs are presented which are intended to cover all employees who take part in hazardous waste management. The three programs are:

8.2.1 General Training Information Program

This program is intended to provide basic safety training information to all employees. The basic information presented in this program is a necessary foundation for more specialized training that is orientated to specific jobs. Table 8.1 gives an outline of this training program.

8.2.2 Broad Training at MacDermid, Incorporated

At MacCermid, Inc., a relatively small number of individuals will be in supervisory and decision-making positions with a degree of authority and responsibility which warrants broad training in all aspects of hazardous waste management pertinent to their facility.

The Broad Training Program is designed to provide management level personnel with the necessary background and perspective for decision-making activities which can impact both the operation and condition of the facility and health and welfare of the surrounding community. This level of instruction is comprehensive and constitutes

a detailed overview of all pertinent aspects of hazardous waste management.

Listed in Table 8.2 are the positions of personnel requiring broad training. It should be noted that as facility personnel are changed, new personnel filling a position must be trained in accordance with Federal regulation (see Section 8.2).

#### 8.2.3 Limited Training at Macdermid Corporation

The Limited Training Program is geared towards personnel having more limited spheres of activity, responsibility and authority. These workers can be trained at a level less comprehensive than that of management personnel. Furthermore, depending upon the specific position, training in one or more areas relative to hazardous waste management might not be necessary.

Table 8.3 lists the positions of personnel that will be presented limited training. Again, it should be noted that as personnel change, training should take place and facility training records must be updated.

#### 8.3 Release Prevention and Response

All facility management personnel must become intimately familiar with the established facility Hazardous Waste Contingency Plan.



Release prevention is the responsibility of each and every worker handling hazardous materials. All personnel involved with operations of the waste facility will be instructed in specific methods of safe waste handling.

All releases of hazardous waste require prompt and deliberate action to minimize hazards to human health and the environment. In the event of any major emergency, it will be necessary to follow the procedures established in the facility Contingency Plan. Such established procedures will be followed as closely as possible; however, in specific emergency situations, the Emergency Coordinator, may deviate from the procedures to provide a more effective plan for bringing the situation under control. The Emergency Coordinator is responsible for determining which emergency situations require plant evacuation.

MacDermid, Inc. employs an alarm which is sounded to notify personnel of the need to evacuate. Total plant evacuation is called for only by an Emergency Coordinator.

In the event plant evacuation is called for by the Emergency Coordinator, the following actions will be taken:

- (1) The signal for plant evacuation will be activated.
- (2) All vehicle traffic within the plant will cease to allow safe exit of personnel and movement of emergency equipment.

- (3) All personnel, visitors and contractors will immediately leave the plant area.
- (4) No persons shall remain or re-enter the location unless specifically authorized by the person(s) calling for evacuation. In allowing this, the person in charge assumes responsibility for those persons within the perimeter.
- (5) All persons will be accounted for by the Emergency Coordinator or his alternate. The Emergency Coordinator will designate certain doors as the safest exits for his/her employees and will also choose an alternate exit if the first choice is inaccessible.
- (6) The rally point is shown on Figure 10.2. Upon exit, the Emergency Coordinator or his alternate will prepare a list of all MacDermid, Inc. employees at the exit point.
- (7) Contract personnel and visitors should also be listed.
- (8) A final tally of persons will be made by the Emergency Coordinator.
- (9) No attempt to find persons not accounted for will involve endangering lives of others by re-entry into emergency areas.
- (10) Re-entry into the area will be made only after clearance is given by the Emergency Coordinator. At his direction, a signal or other notification will be given for re-entry into the facility.
- (11) In all questions of accountability, immediate superiors will be held responsible for those persons reporting to them. Visitors will be the responsibility of those employees they are seeing. Contractors are the responsibility of those persons administering the individual contracts.

#### 8.3.1 Drills

Drills will be held to practice all of these procedures and are treated with the same seriousness as an actual emergency. A key to release prevention is proper operation and maintenance of the waste facility. The primary prevention tool is an on-going inspection program.

During the on-site training session, the facility Contingency Plan will serve as the basis for discussion in this section.

TABLE 8.1

GENERAL TRAINING INFORMATION PROGRAM

MACDERMID, INC.  
WATERBURY, CONNECTICUT

I. GENERAL CHEMICAL INTRODUCTION

A. Acids - A hydrogen containing substance which dissociates on solution in water to produce one or more hydrogen ions. Some examples handled at MacDermid:

1. Nitric Acid
  - a. Fumes in air
  - b. Attacks many metals
2. Sulfuric Acid
  - a. Generates extreme heat when mixed with water
  - b. Attacks many metals
3. Hydrochloric Acid
  - a. Fumes in air
  - b. Attacks many metals
4. Hydrofluoric Acid
  - a. Attacks glass as well as metals
5. Chromic Acid
  - a. Dusty when dry
  - b. Attacks many metals as a liquid

NOTE: Always add acids to water (A to W rule)  
Always use protective equipment when handling

B. Alkaline Materials - A substance having basic properties (pH higher than 7). A Base-dissociates on solution in water to produce one or more hydroxyl ions.  
Some examples handled at MacDermid:

1. Sodium Hydroxide (caustic soda)
  - a. Dry or liquid
  - b. Causes severe burns
2. Potassium Hydroxide (caustic potash)
  - a. Dry or liquid
  - b. Causes severe burns
3. Ammonium Hydroxide
  - a. Ammonia odor
4. Sodium Carbonate (soda ash)

NOTE: Hydroxides can cause severe burns that do not appear on immediate contact.  
Dry material should be added to water with agitation.  
Always use protective equipment when handling.

TABLE 8.1 (continued)

GENERAL TRAINING INFORMATION PROGRAM

MACDERMID, INC.  
WATERBURY, CONNECTICUT

C. Flammables - Easily ignited. Flash points less than 100 degrees Fahrenheit. Some examples handled at MacDermid:

1. Methanol
2. Cyastat SP (trade name)
3. Sodium Hydrosulfite
4. Any red label item (red diamond with flame)
5. Cleaning mixing pots/tanks with solvents

Required mandatory equipment:

- a. Organic mist cartridge respirator
- b. Neoprene gloves
- c. Protective clothing

NOTE: No smoking when handling.  
No open flames nearby.  
Always use grounding stations and protective equipment.

D. Poisons and Toxic Substances - Materials that through chemical action can kill, injure, or impair. Some examples handled at MacDermid:

1. Cyanides
2. Darmex (trade name)
3. Formaldehyde
4. Metal salts

NOTE: Do not mix cyanides with acid. This generates poisonous fumes.  
Do not ingest poisons or toxic materials.  
Avoid breathing fumes or dust.  
Always use protective equipment when handling.

E. Oxidizers - Materials which cause oxidation of other substances (chemical addition of oxygen). Temperatures can be reached that may cause ignition of the oxidized material. Some examples handled at MacDermid:

1. Sodium Nitrate
2. Chromic Acid
3. Sodium Chlorite
4. Persulfates

NOTE: Avoid contact with corrosives.  
Special cases can cause fires - use caution when handling.  
Always use protective equipment when handling.

TABLE 8.1 (continued)

GENERAL TRAINING INFORMATION PROGRAM

MACDERMID, INC.  
WATERBURY, CONNECTICUT

- F. Solvents - (A substance capable of dissolving another substance) Alcohol, Ethyl Acetate, Ethyl Alcohol, Hydro Carbon Solvent, Kerosene, Methanol, Methyl Ethyl Ketone, Organic Solvents, Toluene, Xylene, Xyol. Are usually flammable or combustible liquids. They contribute to air pollution and fire hazards. Inhalation, eyes and skin contact must be avoided. Mandatory equipment:
1. Respirator (type depends on solvent)
  2. Neoprene gloves
  3. Protective clothing

II. PROTECTIVE EQUIPMENT

A. Description

1. Face shields - worn when filling containers or adding chemicals to a mix that could cause splashing. This is optional but mandatory under circumstances as: extracting lab samples from 5 gal., 55 gal. containers, extracting raw material samples from trailer loads, disconnecting acid lines from pumps. Face shields will protect the eyes, face and neck in areas where workers are exposed to hazardous liquids, gases or sprays, or where there is the possibility of being hit by light objects.
2. Fume measuring device - instrument used to measure trace amounts of specific chemical fumes in the air.
3. Safety Glasses - mandatory. Must be worn at all times in the manufacturing areas.
4. Gloves - a safety precaution. Should be worn at all times when handling any and all types of chemicals. Rubber and cloth (for dirty drums, etc.) gloves are available, Neoprene for solvents.
5. Goggles - Full face protection. Used for maximum eye protection to keep dusts, mists, and splashing chemicals from eye contact strongly recommended. Mandatory in areas with severe eye hazards. Workers exposed to fumes or vapors or possible liquid splashes must wear goggles.

TABLE 8.1 (continued)

GENERAL TRAINING INFORMATION PROGRAM

MACDERMID, INC.  
WATERBURY, CONNECTICUT

6. Grounding station - an electrical mechanical device to eliminate static electrical charges or sparks. Used between containers to transfer flammable materials.
7. Hard hats - worn when working below a platform, recommended. Required where there is the danger of falling objects or chemical splashes.
8. Harness for tank entry - a safety device worn when entering a confined space. It is used to extricate a person quickly in case of an emergency.
9. Lock out for power equipment - a mechanical device used to make electrically driven equipment inoperable. This is used for maintenance purposes.
10. Respirators - used when working with hazardous dusts and mists. Several types are available and the correct cartridge should be used. Optional but recommended in most cases. Required in some cases.
11. Scrubbers - exhausts which remove hazardous fumes from the air. The fumes are scrubbed with water or with a sodium hydroxide solution (two types of scrubbers) before release to the atmosphere. These are not to be confused with exhaust fans that vent directly to the outside.

B. Clothing

1. Provided by MacDermid
2. Are not chemical resistant
3. Aprons and rubber suits are available

C. Shoes

1. Steel toes required
2. Provided by MacDermid - two pairs per year for each employee.
3. Uppers not usually chemically resistant - soles usually will be.
4. Rubbers or boots are provided, if necessary

TABLE 8.1 (continued)

GENERAL TRAINING INFORMATION PROGRAM

MACDERMID, INC.  
WATERBURY, CONNECTICUT

First Aid - Emergency treatment of acute poisoning:

Acute poisoning may be the result of entry into the body of large or concentrated doses of a poison through:

1. Breathing (inhalation)
2. Swallowing (ingestion)
3. Skin absorption

General Procedures:

a. Inhalation:

1. Remove victim from contaminated area. Rescuers should be properly protected or provided with life lines.
2. Keep victim warm (not hot) and quiet. Lying flat is usually the best position.
3. If breathing has stopped, give artificial respiration.
4. Administer oxygen, if it is available.
5. Keep breathing passage open. Examine mouth for false teeth and chewing gum and if present, remove them.

b. Ingestion:

1. Attempt to empty the stomach by causing vomiting by use of an emetic. This should be done even if a period of several hours has passed since the poison was swallowed. Exceptions: Corrosive chemicals such as strong acids or caustic alkalies; victim having convulsions; victim unconscious.
2. Dilute the poison by administering fluids in any of the following forms:
  - a. Plain tap water: 3-4 glasses.
  - b. Soapy water: 2-3 glasses.
  - c. Table salt in warm water: One tablespoon to an ordinary 8-ounce tumbler.
  - d. Milk: 3-4 glasses

If these fluids are vomited, which is desirable, the dose may be repeated several times.



TABLE 8.1 (continued)

GENERAL TRAINING INFORMATION PROGRAM

MACDERMID, INC.  
WATERBURY, CONNECTICUT

3. Give the victim a "universal antidote" i.e. a mixture of powdered burnt toast (charcoal), strong tea, and milk of magnesia. This will absorb and neutralize many poisons. (One piece of toast and 4 tablespoons of milk of magnesia in a cup of strong tea.
- c. Skin contact:
  1. Dilute the contaminating substance with large amounts of water. This is best done in a shower, but may also be done with a hose, buckets or other means. The water should be lukewarm if possible.
  2. Remove contaminated clothing. Those assisting the victim should protect their own skin with gloves, if available.
  3. Chemical burns of the eye should be treated with large amounts of water for 15 minutes or with a weak solution of bicarbonate of soda (a level teaspoonful of bicarbonate to 1 quart of warm, clean water).

III. MANUFACTURING EQUIPMENT USAGE

- A. Forklift Training
  1. Description
    - a. Gas
    - b. Electric
  2. Load Limits
    - a. Determined by equipment availability within each department
  3. Operation
    - a. Generally on the job training will be provided
    - b. Occasional instruction from Clarklift is provided
  4. Maintenance
    - a. Daily check of oil and water
    - b. Routine maintenance under contract with Clarklift
  5.
    - a. Check wheels on trucks before entering with forklift
    - b. No racing or wild driving
    - c. Sound horn near blind corners
    - d. No riders on skids or elsewhere

TABLE 8.1 (continued)

GENERAL TRAINING INFORMATION PROGRAM

MACDERMID, INC.  
WATERBURY, CONNECTICUT

B. Emergency Equipment and Use.

1. Air Packs (Scott) - Self-contained life support system used for any chemical emergency. Located near most often used entrances.
2. Eyewashes - Located throughout each department on the floor and on the platforms. May be in combination with a shower and is used to wash eyes should chemicals come into contact with them.
3. Fire Alarms - There are many pull stations throughout the building and at all exits. You should become familiar with their locations.
4. Fire Blankets - There are a few blankets within the building. They are used to smother a fire on a person's body. You should be aware of their locations.
5. Fire Extinguishers - There are many located throughout the building. They are general purpose, ABC types, good for any fire in this building. You should be familiar with their location.
6. Fire Hoses - There are a few fire hoses located in the building. They are high pressure and require two people to operate. One holds the hose while the other operates the valve.
7. First Aid Cabinet - Located throughout the building. There is a supply of bandages, antiseptics, etc., for treatment of minor injuries.
8. Oxygen - One unit located in each of the main areas. For emergency treatment only when overcome by fumes or other respiratory emergencies.
9. pH Control - A sterile phosphate buffer solution used to neutralize acid and alkali burns of the eyes or skin.
10. Showers - Located in combination with most eyewash stations. These are for emergency use only. There is also one in each of the two men's rooms in the manufacturing area. These are general purpose as well as for emergencies.
11. Stretcher - There is one stretcher available for emergency use.

TABLE 8.1 (continued)

GENERAL TRAINING INFORMATION PROGRAM

MACDERMID, INC.  
WATERBURY, CONNECTICUT

C. Production Equipment

1. Each department has an assortment of equipment. Some of this is specialized for that department and some is general equipment available to all departments.
2. On-the-job training will be provided in all phases of the equipment as it pertains to your position.

D. Safety Equipment

1. All items listed in Table 10.2 of the Contingency Plan Protective Equipment are primarily used for safety purposes.

IV. OPERATION

A. Work Flow

1. Order is received from customer.
2. Finished goods inventory is allocated.
3. At some point minimum stock levels are reached and a production order is generated.
4. Raw materials are ordered and received.
5. Manufacturing schedules and produces the product.
6. Material is placed in finished goods storage.
7. Materials are shipped as needed.

B. Security

1. ADT on manufacturing plant (Gear Street and Huntingdon Avenue)
2. Sonitrol on warehouse (raw and finished) and tanker garage
3. Each department is responsible for securing their location at the close of business.
4. The storage yard has gates that are locked at the end of the day.

C. Buddy System

1. No one works alone.
2. Someone always is within shouting distance.

D. Accidents

1. Report immediately to supervisor.
2. File a report irregardless of extent of injuries or lack of injuries.

TABLE 8.2

BROAD TRAINING

MACDERMID, INC.  
WATERBURY, CONNECTICUT

1. Facility Waste Coordinator - Cherrie D. Gillis

Job Description

- a. Responsible for implementation of the Hazardous Waste Management Program at the facility. Must know the compliance requirements and procedures required by the Connecticut DEP and EPA.
- b. Assures the proper identification of hazardous wastes generated at the facility.
- c. Establishes procedures to monitor the disposition of hazardous wastes from generation to ultimate disposal and monitors these activities as necessary.
- d. Assures that containers are properly handled, packaged and labelled.
- e. Selects approved transport and disposal contractors and sites.
- f. Maintains and coordinates implementation of all compliance plans, including the Contingency Plan, Training Plan, Waste Analysis Plan, Inspection Plan, and Closure Plan.
- g. Constructs and manages the hazardous waste storage facility in accordance with regulatory requirements.
- h. Prepares and signs manifest papers when applicable.
- i. Coordinates reporting activities to regulatory agencies.
- j. Collects and maintains records in accordance with recordkeeping requirements.
- k. Coordinates pertinent personnel training activities.
- l. Must know the appropriate information required to notify regulatory agencies, and the internal procedures for notifying regulatory agencies.

TABLE 8.2 (continued)

BROAD TRAINING

MACDERMID, INC.  
WATERBURY, CONNECTICUT

- m. Must know the liabilities for failure to properly notify or respond to an emergency.

Training Requirements

The Facility Coordinator will be trained by reviewing regulatory requirements, attending seminars, use of outside consultants and by on-the-job experience. The training requirements for this position include:

- a. Must have read and be familiar with facility compliance requirements, procedures, and plans before assuming this function.
  - b. Must conduct, or participate in, the training program given to all facility personnel involved in hazardous waste management.
2. Facility Emergency Response Coordinators - John Miele  
Alternates: Bill Schweiker and  
Bob Ardziyauskas

Job Description

- a. Designated authority
- b. In the event of an emergency, responsible for immediate implementation and coordination of all notification and emergency response procedures as designated in the Contingency Plan.
- c. Must know how to identify and assess an emergency condition, and under what conditions to notify local authorities.
- d. Must know how to activate appropriate alarms, evacuate personnel if necessary, and notify local authorities.
- e. Must know what arrangements have been made with local authorities.
- f. Must know facility personnel to contact to initiate emergency response procedures.

TABLE 8.2 (continued)

BROAD TRAINING

MACDERMID, INC.  
WATERBURY, CONNECTICUT

- g. Must know the appropriate emergency response procedures to implement and how to locate and use the emergency response equipment.
- h. Must know the appropriate information required to notify regulatory agencies, and the internal procedures for notifying regulatory agencies.
- i. Must know the liabilities for failure to properly notify or respond to an emergency.
- j. Decision as to call outside authorities for assistance.
- k. Decision as to evacuation.

Training Requirements

- a. Must have read and be familiar with the information and procedures contained in the Contingency Plan.
- b. Must be trained in the notification procedures in the Contingency Plan, including conditions requiring notification, timing of notification, personnel to notify, local authorities to notify, notification information required, and recording notification events.
- c. Must be trained in emergency response procedures identified in the Contingency Plan, including location and use of all emergency response equipment, coordination with local authorities, containment procedures, remedial procedures, and storage and disposal of recovered materials.
- d. Must be trained in personnel utilization in emergency response activities, including types of personnel to be utilized in emergency response situations, the nature and extent of their duties, and prior training required for proper performance of those duties.

TABLE 8.3

LIMITED TRAINING

MACDERMID, INC.  
WATERBURY, CONNECTICUT

FUNCTION: Driver - Waste Handler (On-the-Job Training)

DUTY: Transportation - Chemicals

TASK: Pick-up waste reclaim from customer and transport bulk waste etchant to reclaim facility or transfer facility.

ELEMENT: Transports drummed waste reclaim to Waterbury, signs manifest as transporter.

Transports bulk waste reclaim from customer or Production Storage to railcar on Freight St.

Signs off as transporter and receiver at Freight St.

QUALIFICATIONS: Licensed driver for vehicle operated, training in DOT and EPA Transportation Regulations.  
Should have at least a high school education.

---

FUNCTION: Traffic Supervisor for Wastes (On-the-Job Training)

TASK: Schedules company truck pick-ups for reclaim wastes and outgoing wastes. Types company bills of lading and railcar manifests. Makes arrangements for railcar shipments for reclaim.

ELEMENT: After receipt of shipment of waste, make appropriate mailings for manifests and files for 3 year retention.

Prepare waste manifests for railcar shipments.

Corrects manifests for addresses, etc. by initialing and dating change.

Adds method of storage to incoming manifests as S01, S02.

Follow-up outgoing manifests to make sure TSDF signed copy is back in 15 days.

Makes out all state(s) required transportation reports.

EDUCATION: At least a high school education, typing ability.

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TABLE 8.3 (continued)

LIMITED TRAINING

MACDERMID, INC.  
WATERBURY, CONNECTICUT

FUNCTION: Materials Handler - Recyclable Material - Group Leader (On-the-Job Training)

DUTY: Logs in manifests - Production/store recycled material.

Supervises loading/unloading wastes/storage/manifests.

ELEMENT: 1) Supervises application of waste/shipping labels for shipment off-site.  
2) Supervises and assists off-loading/loading of wastes using forklift from trucks.  
3) Supervises and assists storage of drummed wastes.  
4) Inspects storage and keeps inspection book for waste storage.

EDUCATION: At least a high school education. Must be able to read/write English.

---

FUNCTION: Etchant Production - (Group Leaders)(On-the-Job Training)

DUTY: Performs recycling of material/bulk storage/manifests.

Receives in and ships out via manifests, bulk etchant, assists loading/unloading of tanks for bulk spent etchant.

ELEMENT: Inspects bulk storage area and keeps inspection book for bulk storage and metal hydroxide sludge are.

Logs in received and shipped bulk waste etchant.

Assists loading/unloading bulk waste from tankers.

Takes samples for waste analysis - etchant and sends to QC.

EDUCATION: Should have at least high school education and read/write English.

---



TABLE 8.3 (continued)

LIMITED TRAINING

MACDERMID, INC.  
WATERBURY, CONNECTICUT

TASK: True Waste Handler - Solvents/Inks (On-the-Job Training)

DUTY: Prepare solvents/inks for segregation of type waste, storage, drums for empty bottles/cans and preparation of shipment in accordance to the specific TSDF requirement to be used.

ELEMENT: A. - Obtain correct DOT drums for waste

- Mark drums as to type waste  
(See which TSDF will be utilized)
- Store waste in solvent/ink waste area
- Keeps incoming/outgoing waste logbook
- Prepare manifest documentation
- Keeps area inspection logbook
- Prepare labeling information

B. - New Solvents/inks - (Not already analyzed and accepted by a specific TSDF)

- Obtain 1 quart sample plus type and percentage of contents, waste characteristics
- Send sample to Regulatory Manager for finding TSDF

C. - Arrange for transportation to TSDF

EDUCATION: Should have at least high school education, 2 to 4 years college education with some chemical background would be helpful. Must read/write English.

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TABLE 8.3 (continued)

LIMITED TRAINING

MACDERMID, INC.  
WATERBURY, CONNECTICUT

FUNCTION: Q.C. Department (On-the-Job Training)

TASK: Analyze incoming recyclable material

ELEMENT: Analyzes recyclable material per established parameters.

Keeps logbook on recycle tracking and logs we received and shipped manifests for recyclable material.

Can reject material with authorization to return to customer.

EDUCATION: At least high school education and 2 to 4 years chemical background. Must read/write English.

---

FUNCTION: Hazardous Waste Coordinator (On-the-Job Training)

Canadian Shipments/Domestic Non-routine shipments

DUTY: Have unknown wastes analyzed  
Prepare TSDF documentation

ELEMENT: - If wastes "unknown", sends to independent lab for analysis

- Prepares waste profile for TSDFs for quotation

- Assures correct packaging and shipping information for labels/paperwork

- Arranges manifest documentation and shipping arrangements

- Canadian shipments - Annual report to U.S. and Canadian EPA for acceptance

- Prepares Canadian and U.S. manifest documentation

- Arranges transportation

- Requests written audits from potential TSDFs and requests and keeps files on potential and current waste transporters (Permits and Certificate of Insurance)

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TABLE 8.3 (continued)

LIMITED TRAINING

MACDERMID, INC.  
WATERBURY, CONNECTICUT

- Establishes procedures for other waste handlers and coordinates their activities by making sure their on-the-job training information is up-to-date with the latest regulations

EDUCATION: Should have at least 2 to 4 years college with some chemical background education. Must be able to read/write English. Must have DOT/EPA knowledge.

## 9.0 PREPAREDNESS AND PREVENTION

[40 CFR 264 Subpart C, 270.14(b)(8), 270.14(b)(9) & 270.15(a)]

### 9.1 Preparedness and Prevention

Provided in this section of the Permit Application are:

1. Details regarding the design and operation of the MacDermid, Inc. facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or constituents to air, soil or surface water which could threaten human health or the environment.
2. Descriptions of required emergency equipment at the facility.
3. Descriptions of procedures for emergency communications and alarm systems.
4. Descriptions of access to emergency communications and alarm systems.
5. Descriptions of maintenance of accessible aisle spacing.
6. Description of emergency procedures.

Compliance with these items is described in the following sections.

#### 9.1.1 Design of Facilities [40 CFR 264.31, 270.14(b)(8)(i) and (8)(ii) and 270.15(a)]

##### (1) Container Loading and Unloading Areas

The loading and unloading of containers with free liquid at MacDermid takes place at the East Aurora Street shipping and receiving loading/unloading dock. The location of this dock is shown on Figure 2.1.

The loading/unloading dock is located on the south side of the container storage warehouse. This area, which is approximately 15' x 115' consists of a concrete floor sloped from the 4 inch high loading dock to the storage level. Any spillage within this area will be contained by virtue of the sloped concrete floor, concrete berm along the doors and a masonry block wall that surrounds the loading dock area. The floor, walls and berms in the loading dock area are free of any cracks or gaps.

The containers within this area will be stored only two high, design load capacity of approximately 4 lbs/in<sup>2</sup>. Consequently, the structural integrity of the concrete floor, which has a minimum design load capacity of 1,500 lbs/in<sup>2</sup>, will be more than adequate.

The loading of the dewatered metal hydroxide/sulfide sludge (no free liquids) at MacDermid, Inc. occurs at the metal hydroxide sludge storage area (see Figure 2.1). This sludge, which is generated on-site, is disposed of directly into a 26 cubic yard roll-off. The roll-off is equipped with a drop-in liner and is located inside the facility building.

When the roll-off is full, the roll-off is removed from the facility building via a garage door (see Figure 4.4). A concrete pad is located outside the garage door to support the transport truck and full roll-off. No secondary containment provisions are required for this dewatered waste.

(2) Bulk Loading and Unloading Area

The loading and unloading of bulk liquids at MacDermid, Inc. takes place inside the facility building located east of the Huntingdon Avenue gate (see Figure 2.1).

The concrete floor of this building has trenches leading to a collection sump located within the center of the room. Any spillage within this area will drain to the collection sump and be discharged directly to the industrial waste water treatment system for on-site treatment.

(3) Container Storage Areas

EPA regulations require that container storage areas, where the containers can hold free liquids, must be provided with a secondary containment system capable of holding 10% of the volume of the containers or the volume of the largest container, whichever is greater.

The storage of containers at MacDermid, Inc.'s Huntingdon Avenue facility take place at the following locations:

- Main Container Storage Area;
- Flammable Material Storage Area;
- Micro Storage Area; and
- Metal Hydroxide/Sulfide Storage Area.

The general locations of these storage facilities are shown on Figure 2.1.

(a) Main Container Storage Area

The main container storage area, which is located on the north side of the East Aurora Street warehouse, has been designed to allow for storage of 77,000 gallons of compatible materials. The dimensions of this area are approximately 42' wide and 93' long.

All containers (except 330 gallon storage totes) within this area are stored on wooden pallets and placed on five tier metal racks. On the metal racks, all pallets of containers are separated by a minimum of twelve (12) inches. The pallets are not stored on top of one another.

The storage totes are stored directly on the floor in the open areas located at the north and south ends of this area. The cube storage totes are stored a maximum of two high (see Section 2.3) and the circular totes, one high.

The type of forklift utilized on the metal racks is "steered" through the aisles by a system known as Portec Wire Guidance. This system electronically controls the direction of the fork truck. With this system, there is little or no potential for a forklift to accidentally hit a rack. This system is utilized throughout the warehouse storage area. Placement of pallets on racks is accomplished with manual operated lifts.

To allow for inspection, the metal racks which are stationed along the walls and stationed two deep within the middle of the storage area (see Figure 4.1) are separated by a minimum of 6'9" wide aisles. The storage totes which are stored a maximum of one deep are separated by 2' wide aisles.



Secondary containment is provided within this area by means of an epoxy coated concrete floor, building walls, 3½" concrete berm and a 200 gallon collection sump. Any spills/leaks, in this area will drain to the collection sump via the two (2) floor drains. From the sump, which is equipped with a manually operated control valve, all collected waste after visual/chemical inspection by MacDermid's personnel is either discharged to the 15,000 gallon waste water treatment tank (part of the industrial waste water treatment system) for on-site treatment or transferred to 55 gallon drums for off-site disposal. The volume of secondary containment provided by this area (see Figure 9.1) is calculated on the following page to be 8,310 gallons or 11% of the storage capacity.

MAIN CONTAINER STORAGE AREA CONTAINMENT CAPACITY

Rectangular Areas (II, III, & IV)

$$\begin{aligned} &= 25' \times 30.5' \times 0.29' \\ &+ 68.5' \times 41.5' \times 0.29' \\ &+ 3' \times 18' \times 0.29' \\ &= 1061 \text{ ft}^3 \\ &= 1061 \text{ ft}^3 \times 7.48 \text{ gal/ft}^3 \\ &= 7936 \text{ gallons} \end{aligned}$$

Triangle Area (I)

$$\begin{aligned} &= 0.5 [25' \times 30.5' \times 0.29'] \\ &= 111 \text{ ft}^3 \\ &= 111 \text{ ft}^3 \times 7.48 \text{ gal/ft}^3 \\ &= 830 \text{ gallons} \end{aligned}$$

Storage Totes Area\*

$$\begin{aligned} &= 20 [(3.14 \times (3.67')^2 \times 0.29') \div 4] \\ &= 61 \text{ ft}^3 \\ &= 61 \text{ ft}^3 \times 7.48 \text{ ft}^3/\text{gal} \\ &= 456 \text{ gallons} \end{aligned}$$

$$\begin{aligned} \text{TOTAL CONTAINMENT} &= \text{Rectangular Areas} + \text{Triangle Area} - \text{Storage Totes Area} \\ &= 7936 + 830 - 456 \\ &= 8,310 \text{ gallons} \end{aligned}$$

\*NOTE: For this calculation, 20 circular storage totes were used. The cube storage totes are raised 4" off the floor, therefore, no containment volume would be lost from these containers if used in the calculation.

**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID #** 100853

**Facility Name:** MACDERMID INC

**Facility ID#:** CTD001164599

**Phase Classification:** R-1B

**Purpose of Target Sheet:**

☒ **Oversized (in Site File)**      ☐ **Oversized (in Map Drawer)**

☐ **Page(s) Missing (Please Specify Below)**

☐ **Privileged**      ☐ **Other (Provide  
Purpose Below)**

**Description of Oversized Material, if applicable:**

**FIGURE 9.1: SECONDARY CALCULATION FOR THE  
MAIN CONTAINER STORAGE AREA**

☒ **Map**      ☐ **Photograph**      ☐ **Other (Specify Below)**

**\* Please Contact the EPA New England RCRA Records Center to View This Document \***

(b) The Micro Storage Area

The micro storage area, which is located on the south side of the Lear Street building (Figure 2.1), has been designed to allow for storage of 6,710 gallons of aqueous materials. Within this area, a maximum of 92, 55-gallon drums and 5, 330-gallon storage totes are stored at any one time.

All 55-gallon drums are stored on wooden pallets and stored a maximum of three high. The storage totes which are stored only one (1) high are stationed directly on the floor.

To provide MacDermid personnel easy access for inspection and handling, the rows of containers are separated by 2'-3.5' wide aisles.

Secondary containment for this 24' x 24' area is provided by an epoxy coated concrete floor, building walls and epoxy coated 3" angle iron berms. The volume of secondary containment provided by this area (see Figure 4.3) is calculated on the following page to be 830 gallons or 12% of the storage capacity.

MICRO STORAGE AREA CONTAINMENT CAPACITY

Rectangular Area

$$\begin{aligned} &= 24' \times 24' \times .25' \\ &= 144 \text{ ft}^3 \\ &= 144 \text{ ft}^3 \times 7.48 \text{ gal/ft}^3 \\ &= 1077 \text{ gallons} \end{aligned}$$

Concrete Platforms and Ramp

$$\begin{aligned} &= 7.41' \times 4.41' \times .25' + \\ &\quad 7.25' \times 4' \times .25' + \\ &\quad 6' \times 3' \times .25' \\ &= 20 \text{ ft}^3 \\ &= 20 \text{ ft}^3 \times 7.48 \text{ gal/ft}^3 \\ &= 150 \text{ gallons} \end{aligned}$$

Storage Totes Area\*

$$\begin{aligned} &= 5 [(3.14 \times (3.67')^2 \times .25') \div 4] \\ &= 13 \text{ ft}^3 \\ &= 13 \text{ ft}^3 \times 7.48 \text{ gal/ft}^3 \\ &= 97 \text{ gallons} \end{aligned}$$

TOTAL CONTAINMENT = Rectangular Area - Concrete Platforms and  
Ramp - Storage Totes Area

$$= 1077 - 150 - 97$$

$$= 830 \text{ gallons}$$

NOTE: For this calculation, 5 circular storage totes were used. The cube storage totes are raised 4" off the floor, therefore, no containment volume would be lost from these if used in the calculation. In addition, all 55-gallon drums are stored on 4" high pallets, therefore, no containment volume is lost from these containers.

(c) Flammable Material Storage Area

All flammable waste (flash point <140°F) generated at MacDermid, Inc. is stored in the flammable material storage area. This storage area, which is located at the north end of the Gear Street building (see Figure 2.1), is used to store a maximum of 16, 55-gallon drums or 880 gallons.

To allow for inspection, the two rows of containers are separated by a two (2) foot wide aisle. All containers are stored on 43"x43" wooden pallets to prevent contact with any spilled/leaked material.

Secondary containment is provided for this area which measures 8'1" wide by 10' long by means of an epoxy coated concrete floor and epoxy coated 4" angle iron berm (see Figure 4.2). Located outside this storage area is a floor trench. This floor trench is used to collect any spillage/leakage from the building's process operations. From

this floor trench, all accumulated liquid is discharged to the industrial waste water treatment system.

The volume of secondary containment provided by this area is calculated on the following page to be 202 gallons or 23% of the storage capacity.

FLAMMABLE MATERIAL STORAGE AREA CONTAINMENT CAPACITY

Rectangular Area

$$= 8.1' \times 10' \times 0.33'$$

$$= 27 \text{ ft}^3$$

$$= 27 \text{ ft}^3 \times 7.48 \text{ gal/ft}^3$$

$$= 202 \text{ gallons}$$

TOTAL CONTAINMENT = 202 gallons

All containers are stored on 4" high wooden pallets, therefore, no containment is lost from the containers.



(d) Metal Hydroxide/Sulfide Sludge Storage Area

To store the dewatered metal hydroxide/sulfide sludge generated from MacDermid's on-site industrial waste water treatment system, a single 26 cubic yard roll-off with a drop-in liner is used. This roll-off is located in the northwestern corner of the Huntingdon Avenue facility (see Figure 2.1).

A general layout of the area used to house the roll-off is provided as Figure 4.4. No secondary containment provisions are provided for this waste, since all free liquid has been removed from this waste via the on-site filtering operation.

(4) Waste Storage Tanks

At MacDermid, Inc. four (4) above ground FRP tanks are used for the storage of wastes prior to recycling. A maximum of 29,000 gallons of storage is provided by the tanks as listed below:

<u>Tank</u>	<u>Volume</u>	<u>Intended Use</u>
1	8,000 gal.	Spent Copper Etchant
2	8,000 gal.	Spent Copper Etchant
3	8,000 gal.	Spent Copper Etchant
4	5,000 gal.	Spent Copper Etchant

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The location of these tanks, as shown on Figure 2.1, is in the northwestern section of the Huntingdon Avenue building.

Secondary containment is provided for these tanks by means of an epoxy coated concrete floor, epoxy coated building walls and 2'7" high epoxy coated concrete berms located at both entrance ways (see Figure 4.5). The volume of secondary containment provided in this area is calculated on the following page to be 11,953 gallons which is 149% of the largest tank in the area or 41% of the total tank storage capacity. This calculation excludes the area occupied by the storage tanks.

WASTE STORAGE TANKS CONTAINMENT CAPACITY

Rectangular Area

$$\begin{aligned} &= 56.5' \times 17.25' \times 2.58' \\ &= 2515 \text{ ft}^3 \\ &= 2515 \text{ ft}^3 \times 7.48 \text{ gal/ft}^3 \\ &= 18,812 \text{ gallons} \end{aligned}$$

Storage Tanks Area

$$\begin{aligned} &= 3 [(9.67')^2 \times 3.14 \times 2.58'] \div 4] + \\ &\quad 1 [(10')^2 \times 3.14 \times 2.58'] \div 4] + \\ &\quad 1 [(8.5')^2 \times 3.14 \times 2.58'] \div 4] \\ &= 917 \text{ ft}^3 \\ &= 917 \text{ ft}^3 \times 7.48 \text{ gal/ft}^3 \\ &= 6,859 \text{ gallons} \end{aligned}$$

$$\begin{aligned} \text{CONTAINMENT VOLUME} &= \text{Rectangular Area} - \text{Storage Tanks Area} \\ &= 18,812 - 6,859 \\ &= 11,953 \text{ gallons} \end{aligned}$$

### 9.1.2 Operation of Facility

- (1) All container loading/unloading operations will be carried out with extreme care so as to minimize the possibility of damaging any containers. Such operations will be carried out only by an experienced forklift operator and under the supervision of the Plant Manager and/or Operation Foreman.

During all loading/unloading operations, at least ten (10) bags of absorbent and three (3) empty open-head drums will be maintained on hand inside the East Aurora Street material warehouse in the event that spills occur during said operations. No smoking, open flames, welding, metal working, or other activities which may initiate a spark will be allowed within 50 feet of ignitable hazardous wastes.

The specific procedures for loading, unloading, and transporting container shipments with free liquid material are as follows:

#### (a) Unloading Operations for Containers

- Container trucks will enter through the receiving gates located on East Aurora Street and park adjacent to

the loading/unloading dock. The driver of the truck will then report to the warehouse office.

- If the material is accepted by the warehouse personnel and/or office personnel, the driver will be instructed to proceed to the container unloading area.
- During unloading, warehouse personnel will inspect all containers to make sure all containers are in good condition and properly marked and labelled prior to being transported to the container storage area.
- The material within any damaged container will be transferred to an approved container prior to transport to the container storage area.
- When the truck is unloaded, the driver will be instructed to receive his completed paperwork (manifest) from the shipping/receiving office.
- Following actual unloading, any spills or leaks from the containers will be cleaned up and the area decontaminated.

(b) Loading Operations for Containers

The specific procedures for loading containers with free liquids are as follows:

- Container trucks will enter through the receiving gates located on East Aurora Street and park adjacent to the loading/unloading dock. The driver of the truck will report to the warehouse office.
- The warehouse personnel will inspect the load to make sure all containers are in good condition and properly marked and labelled.
- Any damaged container will be transferred to an overpack container, sealed, and properly labelled prior to being loaded onto the truck.
- When the truck is loaded, the driver will be instructed to receive his completed paperwork (manifest) from the shipping/receiving office.
- Following actual loading, any spills or leaks from the containers will be cleaned up, and the area decontaminated.

(c) On Site Container Transporting

- The warehouse personnel will inspect all containers to make sure all containers are in good condition and properly marked and labelled prior to being transported to the recycling areas.
- The material within any damaged container will be transferred to an approved container prior to being transported to the recycling area.
- Upon approval from warehouse personnel, each drum is transported to the container recycling area by an experienced operator using a barrel grabber or forklift.

(2) Bulk Loading/Unloading Operations

All bulk material transfers at the tank loading/unloading area are carried out with extreme care and caution so as to minimize the occurrence of leaks or discharges from truck fittings and related storage tank structures. During loading and unloading, an operator will be present at all times to ensure that an overflow of waste does not occur.

The specific procedures for loading and unloading bulk liquid shipments are as follows:

(a) Unloading Operations for Bulk Material

- All bulk material will be delivered on-site via the Huntingdon Avenue gate. To obtain access through this locked gate, the driver will activate the bell in the manufacturing area to contact manufacturing personnel. Upon entering the site, the driver will be directed to the bulk loading/unloading area. The entrance gate will be closed by manufacturing personnel.
- The truck will be gauged and sampled as necessary in accordance with the procedures specified in the Waste Analysis Plan (See Section 5.0).
- Prior to actual unloading, the manufacturing personnel will determine tank storage capacity by noting the external site gauge located on each tank (see Operating Logs in Section 11.0) to determine if the contents of the truck will fit into the



tank(s) being pumped into (prevent overflowing of any tank).

- Following actual unloading, any spills or leaks from the truck discharge piping will be cleaned up, and the area decontaminated.
- When the truck is unloaded, the driver will be instructed to receive his completed paperwork (manifest) from the traffic department.

(b) Loading Operations for Bulk Material

- All trucks for bulk pick-up will enter the site via the Huntingdon Avenue gate. To obtain access through this locked gate, the driver will activate the bell in the manufacturing area to contact the manufacturing personnel. Upon entering the site, the driver will be directed to the bulk loading/unloading area. The entrance gate will be closed by the manufacturing personnel.
- Prior to actual unloading, the manufacturing personnel will determine tank storage capacity by noting the external site gauge located on each

tank (see Operating Logs in Section 11.0) to determine the quantity of material available for transfer. This will prevent overfilling the truck.

- Following actual loading, any spills or leaks from the truck discharge piping will be cleaned up, and the area decontaminated.
- When the truck is loaded, the driver will be instructed to receive his completed paperwork (manifest) from the traffic department.

### (3) Container Storage Operations

In the main container storage area, micro storage area and flammable material storage area, all 13 and 55 gallon containers are stored on 43"x43" wooden pallets. This minimizes the corrosion effects on the floor or containers that could occur if the container were in physical contact with the floor and/or any spilled materials. The 330-gallon storage totes which come in two designs; circular and cube, are stored directly on the floor. The cube storage totes, as illustrated on Figure 2.2, are

stored in a wire mesh cage which elevates the cube container approximately four (4) inches off the floor.

To provide MacDermid personnel with easy access for inspection and handling, the containers in the areas described above are stored in rows separated by a minimum of two (2) feet. Each storage area is also inspected on a daily basis for leaks/spills and on a weekly basis for sealing of containers, marking of containers, etc. (see Section 7.0, Inspection Plan).

Ignitable wastes which are stored only in the flammable material storage area, as required by RCRA and NFPA, are stored only one high and maintained 50 feet from the nearest property boundary.

Small volumes of liquids (less than 25 gallons) accumulated in the secondary containment areas will generally be absorbed with speedi-dry and placed in a clean, 55 gallon drum. A sample of this material will be tested for as described in Section 5.0, the Waste Analysis Plan, to determine proper manifesting information.

They will be manifested as described in Section 5.0 using the information gained from testing and from identifying the leaking drum's contents from its manifest.

Large volume of liquids (more than 25 gallons) will generally be pumped with a portable sump pump to clean 55 gallon drums. These materials will be sampled and analyzed as detailed in Section 5.0, the Waste Analysis Plan. The drum will then be properly labelled and marked and the material handled in the usual fashion for that waste designation.

The metal hydroxide sludge storage area is used only to store dewatered sludge in a 26 cubic yard roll-off. Since this waste contains no free liquids, this storage area and/or roll-off are not designed to protect the storage container from accumulated liquids nor inspected daily for leaks/spills.

(4) Tank Storage Operation

Each operating day, the level of the waste storage tanks will be measured (sight gauges) and recorded on the Inspection Sheets (see Section 7.0) and Operating Logs (see Section 11.0), to minimize the possibility

of overfilling the tanks and to determine if any quantity of material was released suddenly or non-suddenly via leaks or tank failure. In addition to the daily level inspections, each tank will be inspected on a weekly basis for structural defects (see Inspection Plan, Section 7.0).

9.1.3 Required Emergency Equipment

A description, list and location of all emergency equipment available at MacDermid, Inc. is provided in Section 10.0, the Contingency Plan. Provided below is a brief discussion of compliance with each of the types of equipment required.

(1) Internal Communication [40 CFR, Section 264.32(a)]

Internal communications are provided in the storage facilities by virtue of a telephone, paging and alarm systems. Emergency instructions can be transmitted via telephone, paging or alarm system to affected employees throughout the entire MacDermid, Inc. Huntingdon Avenue facility.

(2) Outside Communication [40 CFR, Section 264.32(b)]

The telephones throughout the facility are capable of summoning outside assistance. A list of emergency telephone numbers are provided next to each phone or in hallways for easy access in the event of an emergency.

(3) Emergency Fire and Spill Control Equipment [40 CFR, Section 264.32(c)]

A list, description, and location of all emergency equipment is provided in Section 10, Table 10.2. A summary of such equipment is described below:

Fire Control Equipment

All extinguishers are professionally serviced by Waterbury Fire Extinguisher Co., Waterbury, CT.

63 - 20 pound ABC dry chemical

22 - 10 pound ABC dry chemical

9 - 15 pound CO<sub>2</sub>

20 - 5 pound CO<sub>2</sub>

5 - 2" 30' length of hose hooked into sprinkler system and ADT

2 - On wheels - 250 pounds dry chemical

4 - Fire Hose

2 - Fire Blankets

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### Personal Protective Equipment

The following protective equipment is maintained at the facility for use by personnel during an emergency:

- A. 5 - Scott Air Packs ..... Rated 30 minute breathing air\*
- B. 4 - Spare tanks for Scott Air Packs\*
- C. 9 - Gas Mask Check Type. With canisters for organic vapors, acid gasses and ammonia\*
- D. Chemical Suits

### \*Locations

- A. 2 - Ink Dept. (Gear Street)
  - 1 - Shipping Warehouse
  - 1 - Liquid Dept. - production
  - 1 - Dry Mix Dept. - Production
- B/C. Storage Cabinet near Production Offices
- D/E. Scattered throughout Manufacturing and Transportation

### First Aid Equipment

- A. Standard Industrial First Aid Kit;
- B. Acid and Alkaline Burn Kit; and
- C. Emergency Eye Wash and Shower.

#### 9.1.7 Arrangements with Local Authorities

[40 CFR, Section 264.37]

State and Federal regulations require arrangements be agreed to by local police and fire departments, hospitals, contractors, and State and local emergency response teams. In fulfillment of the requirements of this part, MacDermid, Inc. has made agreements with the following agencies:

- Waterbury Fire Department
- St. Mary's Hospital
- Waterbury Hospital
- Waterbury police Department

Each of the above agencies has been sent a copy of MacDermid, Inc.'s Contingency Plan.

#### 9.2 General Hazard Prevention

[40 CFR, Section 270.14(8)]

State and Federal regulations for General Hazard Prevention require a description of procedures, structures or equipment used at the facility to:

1. Prevent hazards in unloading operations;
2. Prevent runoff from hazardous waste handling areas to other areas;
3. Prevent contamination of water supplies;
4. Mitigate effects of equipment failure and power outages; and
5. Prevent undue exposure of personnel.



The majority of these items are addressed in other sections of this report notably Sections 4.0, 9.1.1 and 10.0. Provided below is a brief description of or specific reference to, compliance by MacDermid, Inc. with the requirements of this section.

9.2.1 Prevention of Hazards in Unloading Operations

[40 CFR, Section 270.14(8)(i)]

Procedures to be used to prevent hazards during loading/unloading operations have been discussed in detail in Section 9.1.1. Additional descriptions are also provided in Section 4.0.

9.2.2 Prevention of Runoff

[40 CFR, Section 270.14(8)(ii)]

Runoff from hazardous waste handling areas will be prevented from migrating to the environment by virtue of concrete floors, building walls, concrete curbing and/or berms, as described in Section 4.0 and Section 9.1.1

9.2.3 Prevention of Contamination of Water Supplies

[40 CFR, Section 270.14(8)(iii)]

As described in Section 12.0 there are no public or private water supplies within 1,000 feet of the MacDermid, Inc. facility.

9.2.4 Mitigate Effects of Equipment Failure or Power Outages [40 CFR, Section 270.14(8)(iv)]

MacDermid, Inc. is a recycling and storage facility only. Since all operations are con-

ducted on a manual basis, there is only minimal equipment that could fail (e.g. portable sump pumps, telephones, and lights).

All of the above equipment is inspected on a periodic basis as described in Section 7.0 and will be maintained in good working order.

It is not expected that failure of any of the above equipment would present a significant hazard to operations at MacDermid, Inc.

For example:

- If the portable sump pump fails, a replacement pump is available at all times.
- If the telephone and paging system fails, the alarm systems can be used to alert all key personnel throughout the facility.

#### 9.2.5 Prevent Undue Exposure of Personnel

[40 CFR, Section 270.14(8)(v)]

Personnel protective equipment available on-site is listed in Section 10, Table 10.2.

#### 9.3 Prevention of Ignition or Reaction of Wastes

[40 CFR, Sections 270.14(9) and 264.17]

State and Federal regulations require that an owner/operator provide a description of precautions to prevent accidental ignition or reaction of ignitable, reactive or incompatible wastes. In particular:

- (a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "NO SMOKING" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.
- (b) Where specifically required, the owner/operator of a facility that treats, stores, or disposes ignitable waste or incompatible wastes and other materials, must take precautions to prevent reactions which:
1. Generate extreme heat or pressure, fire or explosions, or violent reactions;
  2. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;
  3. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
  4. Damage the structural integrity of the device or facility;
  5. Through other like means threaten human health or the environment.

Provided in the following sections are descriptions of the precautions taken by MacDermid, Inc. in the handling of ignitable, reactive and/or incompatible wastes.

#### 9.3.1 Precautions Relating to Flammable Wastes

At MacDermid, inc. all flammable wastes are stored in the flammable material storage area.

This storage area is located in the north section

of the Gear Street building (see Figure 2.1) approximately 125 feet from the nearest property boundary.

All storage and handling operations involving flammable hazardous wastes are conducted so as to prevent accidental ignition of said wastes. All containers of flammable wastes are stored in closed containers.

During storage and handling operations, flammable wastes are separated and protected from all sources of ignition including, but not limited to: open flames, lighting, smoking, cutting, welding, hot surfaces, frictional heat, radiant heat, spontaneous ignition, and sparks from static, electrical, or mechanical sources. "NO SMOKING" signs are conspicuously displayed both inside and outside the flammable material storage area. "NO SMOKING" will also be observed in all loading and unloading operations.

All tools (bung wrenches, etc.) and equipment used during, or in the area of, flammable hazardous waste handling and storage are non-sparking. All electrical equipment and wiring (lights, alarms, switches, etc.) in the flammable material storage area are explosion-proof, as specified in NFPA 70, National Electrical Code.

The flammable material storage area is also equipped with manual fire suppression equipment and a sprinkler system.

9.3.2 Precautions Relating to Reactive/Incompatible Wastes

To prevent the possibility of an explosive reaction, only compatible wastes are stored within the various storage areas. As a basis for determining compatibility, MacDermid personnel uses EPA guidance described in 40 CFR 264 Appendix V, "Examples of Potentially Incompatible Wastes", as well as MacDermid's extensive knowledge and experience in storing chemical reagents.

## HAZARDOUS WASTE CONTINGENCY PLAN

MACDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CONNECTICUT

### 10.0 HAZARDOUS WASTE CONTINGENCY PLAN

[40 CFR Sections 26.450-.56 and 270.14]

#### 10.1 Purpose

In accordance with Title 40 of the Code of Federal Regulations 264 Subpart D, the following plan will be used in the event of an emergency.

The purpose of this plan is three-fold:

- 1) To act as a guide during actual emergency situations;
- 2) To minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous and industrial wastes stored on-site to the air or soils; and
- 3) To familiarize local emergency response personnel (i.e. police, fire, and rescue departments, hospital and governmental personnel) with the types of material handled and internal emergency response procedures.

The provisions of this plan will be carried out immediately whenever there is a fire, explosion, or release of hazardous waste which could threaten human health or the environment.

In addition, this plan is intended to describe the actions facility personnel must take to minimize hazards to human health or the environment in the event of fires, explosions, or any unplanned sudden or non-sudden release of hazardous wastes.

A general description of the facility, including the location of hazardous waste storage areas and emergency equipment and communications, are shown on Figure 10.1. Evacuation routes are shown on Figure 10.2.

Provided in the following sections of this plan are:

- 10.2 Initial Notifications
- 10.3 Implementation of the Contingency Plan
- 10.4 Emergency Procedures
- 10.5 Control Procedures
- 10.6 Emergency Equipment/Containment Structures
- 10.7 Evacuation Plan
- 10.8 Reporting of Emergency Incidents
- 10.9 Contingency Plan Review/Location
- 10.10 Arrangements with Local Authorities

A. Introduction

MacDermid, Inc. is located on two parcels of property north and south of Huntingdon Avenue in the Fairmont section of Waterbury, Connecticut. The southern parcel is approxi-

mately 11 acres in area on which one building houses both manufacturing and laboratory facilities. The northern parcel is approximately 35 acres in size and is mostly undeveloped except for MacDermid's corporate office located on the eastern portion.

The principle business of MacDermid, Inc. is the blending or compounding of chemical materials used in metal finishing, plating on plastics, micro electronics and printed circuit industries. As an adjunct to the principle business, MacDermid reprocesses used chemicals received from their customers for recycling. As a result of these operations, hazardous wastes are generated, stored temporarily on-site and/or recycled. Ultimately all hazardous wastes are removed from the site by certified waste haulers and disposed of at permitted hazardous waste disposal facilities.

The remainder of the Plan describes necessary actions and procedures to be employed in the event of an emergency at MacDermid, Inc.

Presented on Figure 10.1 is a site plan of the facility.



**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID #** 100853

**Facility Name:** MACDERMID INC

**Facility ID#:** CTD001164599

**Phase Classification:** R-1B

**Purpose of Target Sheet:**

☒ **Oversized** (in Site File)      ☐ **Oversized** (in Map Drawer)

☐ **Page(s) Missing** (Please Specify Below)

☐ **Privileged**      ☐ **Other** (Provide  
Purpose Below)

**Description of Oversized Material, if applicable:**

**FIGURE 10.1: EMERGENCY EQUIPMENT LOCATIONS**

☒ **Map**    ☐ **Photograph**    ☐ **Other** (Specify Below)

**\* Please Contact the EPA New England RCRA Records Center to View This Document \***

B. Handling Emergencies for MacDermid Incorporated

As the quantity and variety of hazardous materials increase, the likelihood of emergencies grow. Also, even relatively minor incidents, from a technical viewpoint, may seem to be major emergencies from the public's standpoint. It is imperative that emergencies involving MacDermid materials be handled in an expeditious manner so as to protect persons, property, and the environment from whatever hazards may be involved. It is also crucial that we protect our reputation.

MacDermid's role in an emergency should be to advise and assist by providing technical information and material resources as necessary and appropriately to enable everyone to reduce the hazard as much as possible.

For the safety of all concerned, it is essential that an incident be properly reported and documented, such that appropriate MacDermid personnel can be contacted as soon as possible. How to report such an emergency, how to contact appropriate MacDermid personnel, and MacDermid's responsibilities at the incident scene, are the subjects discussed in the following section of this guideline.

C. Media Relations

Transportation emergencies usually become known to the news media fairly rapidly, especially if police and local fire departments or emergency organizations become involved. The media and MacDermid have the same interests; obtaining accurate information regarding the incident and informing the public as to what has really happened. However, details of an incident that could be very important to understanding it in perspective, may go uncovered by the media, because the media does not understand their significance. To be sure that the incident is reported accurately, it is necessary to provide the media with all relevant information, and to be sure that it is correctly understood.

MacDermid and the carrier are ultimately responsible for handling all media contacts, in practice he will usually identify a MacDermid representative as being the expert on the material involved. The MacDermid representative should try to answer all relevant questions concerning the incident; to do otherwise would only cause the media to doubt MacDermid's sincerity. The material involved should be identified by its most common name, and if

requested, a description of its particular characteristic should be provided using terminology commonly used in transportation. Corrective action that may be required, such as neutralization, cargo transfer, the evacuation of houses, or the wearing of special protective equipment, should be explained as simply and briefly as possible.

Care must be exercised in any discussion with the media. Such care calls for the MacDermid representative or carrier spokesman to tread a narrow line, cooperating and answering legitimate questions, but volunteer information only if it is necessary to put all the facts in proper perspective. Answers and statements should be kept as brief as possible, without seeming to be curt and unwilling to explain. Simplicity should be the key note. Also, it is not wise to speculate as to what might happen in the worst of all situations; however, it is equally dangerous to dismiss hazards that might reasonably be expected to exist. It is important to express assurance that the carrier is competent and that he is dealing with the situation in a safe and efficient manner.

In the event that we are the carrier, we must respond with on-site representation, sending a team of people with appropriate safety equipment and personnel knowledgeable on obtaining alternate containers from local sources and have the knowledge to assure the damaged containers are repackaged either temporarily, or in containers that meet DOT transportation specification.

D. Types of Hazardous Wastes

Several types of hazardous wastes (reclaim) are received on-site prior to reclamation (recycling):

- Recyclable copper and ammonia solution
- Recyclable chromic acid solution
- Recyclable solder stripper and conditioner solution
- Recyclable Electroless Copper
- N-Methyl Pyrolidone

a. Recyclable Copper and Ammonia Solution:

Recyclable copper and ammonia solution is received either in bulk or in containers, and stored temporarily prior to reclamation.

Recyclable solution received in bulk is stored temporarily in the waste storage tanks, and later reclaimed on-site, or re-shipped off-site for reclamation.

Recyclable solution received in containers is stored temporarily in the main container storage area, or micro storage area, and later reclaimed on-site or reshipped off-site for reclamation.

b. Recyclable Chromic Acid Solution:

Recyclable chromic acid solution is received in containers and stored temporarily prior to on-site usage as a raw material or shipped off-site to an approved TSDF. Shipments of containers are stored in the main container storage area.

c. Recyclable Solder Stripper/Conditioner Solution/Electroless Copper/N-Methyl Pyrrolidone/9204

Recyclable solder stripper and conditioner solution is received in containers, and stored temporarily prior to the Solder Stripper and Electroless Copper, N-Methylpyrrolidone and 9204 being reclaimed on-site. The Solder conditioner is sent to MacDermid, Inc., Ferndale, MI for on-site reclamation. These materials are stored in the main container storage area, or micro storage area, and later transferred for recovery on-site or transferred to MI.

## 10.2 Initial Notifications

At the facility, the following personnel must be notified in case of a sudden or non-sudden release of hazardous wastes, fire or explosion. The phone number at the plant to be used by persons outside the facility (e.g. fire, police, spill contractors, etc.) is (203) 575-5700.

NAME	HOME LOCATION	HOME PHONE	PLANT PHONE
John Miele (Emergency Coordinator)	131 Stoddard Road Waterbury, CT	756-2702	575-5851
Bill Schweiker (Alternate)	19 Juniper Dr. Wolcott, CT	879-2837	575-5998
Bob Ardziyauskas (Alternate)	58 Delhurst Dr. Waterbury, CT	757-6953	575-5849
Frank Cruice (Alternate)	23 Atwood St. Watertown, CT	274-6576	575-7908

In case of an imminent or actual emergency at the plant, the Emergency Coordinator or his alternate shall be contacted first. The Emergency Coordinator shall carry out the emergency plan agreed to by local police, fire department, hospitals, contractors and state and local emergency response teams.

The flow diagrams in Sections 10.5.2, through 10.5.4 contain all the phone numbers of organizations or facilities that the Emergency Coordinator should contact, should the threat of imminent danger arise.

### 10.3 Implementation of the Contingency Plan

[40 CFR Section 264.51]

The decision to implement the Contingency Plan depends upon whether or not an imminent or actual incident could threaten human health or the environment. This section outlines decision-making criteria which the Emergency Coordinator should use to define situations in which the Contingency Plan will be implemented.

#### (1) Fire and/or Explosion

- a. A fire causes the release of toxic fumes.
- b. The fire spreads and could possibly ignite materials at other locations on-site or could cause heat-induced explosions.
- c. The fire could possibly spread to off-site areas.
- d. Use of water or water and chemical fire suppressant could result in contaminated runoff.
- e. An imminent danger exists that an explosion could occur, causing a safety hazard because of flying fragments or shock waves.
- f. An imminent danger exists that an explosion could ignite other hazardous waste at the facility.
- g. An imminent danger exists that an explosion could result in release of toxic materials.
- h. An explosion has occurred.

#### (2) Spills or Material Release

- a. The spill could result in release of flammable liquids or vapors, thus causing a fire or gas explosion hazard.



- b. The spill could cause the release of toxic liquids or fumes.
- c. The spill can be contained on-site, but the potential exists for ground water contamination.
- d. The spill cannot be contained on-site, resulting in off-site soil contamination and/or ground water or surface water pollution.

(3) Floods

- a. The potential exists for surface water contamination.

10.3.1 Authority of Emergency Coordinator

[40 CFR Section 264.55]

The Emergency Coordinator and his alternates shall be thoroughly familiar with:

- a) all aspects of this contingency plan;
- b) all operations and activities at MacDermid, Inc.;
- c) the location and characteristics of all waste handled at MacDermid, Inc.;
- d) all records at MacDermid, Inc.; and
- e) the facility layout.

The Emergency Coordinator and his alternates shall have access to all parts of MacDermid, Inc. The Emergency Coordinator and his alternates shall have the authority to spend or use whatever is necessary to carry out this Contingency Plan.

#### 10.4 Emergency Procedures

[40 CFR Section 264.56]

Emergency procedures are the responsibility of the Emergency Coordinator or his alternate. Such procedures are specifically outlined below:

- I. If necessary, the Emergency Coordinator should activate internal facility alarms and/or communication systems to notify all facility personnel.
- II. The foreman of each department will, if necessary, evacuate all personnel within each department using pre-determined routes described in this Plan.
- III. If their help is needed, the Emergency Coordinator should notify the appropriate state and local agencies included in the emergency procedural flow diagrams.
- IV. The Emergency Coordinator must identify the character, exact source, amount, and extent of any released materials and assess possible hazards to human health or the environment.
- V. If the Emergency Coordinator determines there is a threat to human health or the environment outside the facility, he must report his findings to:
  - Local authorities, if evacuation of local areas is advised (see procedural flow diagrams);
  - Fire/Police Department: 911  
Health Department (Waterbury) 574-6780
  - Connecticut Department of Environmental Protection -  
Emergency Response: (203) 566-3338, and  
566-4633;  
State Police: Bethany (203) 756-8069; and
  - National Response Center telephone number:  
1-800-424-8802.

The following information must be provided to the DEP and the National Response Center when contacted:

- Name and telephone number of reporter;
- Name and address of facility;
- Time and type of incident (e.g. release, fire);
- Name and quantity of material(s) involved, to the extent known;
- The possible hazards to human health or the environment outside the facility; and
- The extent of injuries, if any.

#### 10.5 Control Procedures

##### 10.5.1 Emergency Procedures

The MacDermid, Inc. hazardous waste training program includes personnel training for emergency situations. Potential accidents fall under the following classifications:

- (1) Fire and/or Explosions;
- (2) Spill and/or Release; and
- (3) Potential Flood.

This section of the report outlines particular emergency control procedures. Immediately following the text of Sections 10.5.3, 10.5.4, and 10.5.5 are procedural flow diagrams for each of the emergencies listed above. The text preceding each chart provides more detailed information for handling each type of emergency. The types of hazardous wastes stored at MacDermid, Inc. are described along with their associated hazards in Table 10.1.

TABLE 10.1  
WASTE IN STORAGE

<u>Substance in Storage</u>	<u>Contingency Data</u>
Copper and Ammonia Solution	<p><u>Life Hazard:</u> Ingestion is corrosive to the digestive tract. Irritating and corrosive to body tissues. Excessive inhalation of vapors is irritating to the mucous membranes of the respiratory tract and can result in headache, coughing, lung congestion and difficulty in breathing. Liquid contact with eyes can result in eye damage.</p> <p><u>Personal Protection:</u> Use splash-proof, chemical resistant safety goggles, and where needed, a faceshield. Use rubber suit, boots, gloves, apron, or other protective clothing to prevent contact.</p> <p><u>Storage:</u> Store in leak-proof containers or tanks. Protect against physical damage.</p> <p><u>Fire Fighting:</u> Use media appropriate to surrounding fire conditions. Use cold water spray to control vapors and cool fire-exposed containers. When heated, material will emit vapors which necessitates respiratory and eye protection for firefighters. Use protective clothing.</p>
Chromic Acid Solution	<p><u>Life Hazard:</u> Inhalation may irritate the respiratory tract. Skin contact may cause immediate and delayed damage. Eye contact may result in severe burns. Ingestion may cause internal damage.</p> <p><u>Personal Protection:</u> Use splash-proof, chemical resistant safety goggles, and where needed, a face shield. Neoprene or other synthetic rubber gloves and apron should be used.</p> <p><u>Storage:</u> Store in leak-proof containers or tanks. Protect against physical damage. Do not store acids with solvents.</p>

TABLE 10.1 (continued)

WASTE IN STORAGE

<u>Substance in Storage</u>	<u>Contingency Data</u>
Chromic Acid Solution (cont.)	<u>Fire Fighting:</u> Use media appropriate to surrounding fire conditions
Solder Stripper and Conditioner Solution	<u>Life Hazard:</u> Irritants of the eyes, mucous membranes and skin. Vapors/mists can irritate upper respiratory tract and result in coughing, burning of the throat, choking sensation and if inhaled deeply, pulmonary edema. Ingestion can cause burns and possible laryngeal spasm.  <u>Personal Protection:</u> Use rubber gloves or gauntlets, apron, boots, long sleeve shirt, body suit, etc. Use chemical resistant safety goggles and/or face shield for eye protection against splashing of acid.  <u>Storage:</u> Store in leak-proof containers or tanks. Protect against physical damage. Do not store acids with solvents.  <u>Fire Fighting:</u> Select extinguishing media suitable for surrounding fire. Use a water spray to cool exposed containers to prevent rupture. Nonflammable, but acid can react with many metals to produce hydrogen gas. Neutralize acid with limestone, slaked lime or soda ash, to minimize formation of hydrogen gas.
Flammable Solvents	<u>Life Hazard:</u> Incoordination and impaired judgement may occur at vapor exposures from 300-1,000 ppm. Dizziness, loss of consciousness and even death can occur at increasing levels of exposure. When involved in fire, emits highly toxic and irritating fumes. Eye and respiratory irritant. Extreme inhalation of vapors may cause death by paralysis of the respiratory center.

TABLE 10.1 (continued)

WASTE IN STORAGE

<u>Substance in Storage</u>	<u>Contingency Data</u>
Flammable Solvents (cont.)	<p><u>Personal Protection:</u> Wear full protective clothing including safety goggles.</p> <p><u>Storage:</u> Store in a cool, dry, well ventilated location, away from any area where the fire hazard may be acute.</p> <p><u>Fire Fighting:</u> Use dry chemical foams, or carbon dioxide since water may be ineffective. But water should be used to keep fire exposed containers cool. If leak or spill has not ignited use water spray to disperse the vapors and to protect personnel attempting to stop a leak. Water spray may be used to flush spill away from exposures.</p>
Metal Hydroxide/ Sulfide Sludge	<p><u>Life Hazard:</u> Ingestion can cause intestinal disorders and even death. Metal constituents can cause dermatitis with skin contact. May emit toxic fumes during fire.</p> <p><u>Personal Protection:</u> Wear full protective clothing including goggles, apron and gloves.</p> <p><u>Storage:</u> Store in cool, dry, well-ventilated area, away from acute fire hazards. Incompatible with alkalies.</p> <p><u>Fire Fighting:</u> Use water spray to keep fire-exposed containers cool. Essentially non-flammable; if ignited, blanket fire with sand, G-1 powder or powdered talc.</p>

#### 10.5.2 Fire and/or Explosion

The container storage and handling areas and the tank storage area can all be easily accessed by fire fighting and other emergency vehicles and equipment.

If a fire breaks out, concentration will be placed on contacting local fire fighting officials and the orderly evacuation of the affected area(s).

The following actions will be taken in the areas affected by the fire or explosion:

- (1) Fire doors in buildings will be closed.
- (2) Hazardous work in all areas will be shut down immediately.
- (3) All material transfer operations will be shut down, as necessary and practical.
- (4) The area will be cleared of all personnel not actively involved in fighting the fire. These persons are to report to the designated rally points for accountability.
- (5) All injured persons will be removed and medical treatment will be administered by qualified personnel.

The facility receptionist will be called and advised not to accept any outside calls unless absolutely necessary so that the phone lines remain free to handle only emergency calls.



Area or plant evacuation will be necessary in case of major fire or explosion. All personnel have been trained in evacuation procedures and means of exit from their respective work areas.

Until evacuation is signaled, personnel who are not in an affected area will stay in their respective work areas. Contract personnel and visitors will be cleared from the area and instructed to report to the Production Manager's Office.

The Emergency Coordinator will be responsible for determining if personnel who are not in an affected area can stay in their respective work area. Supervisory personnel of unaffected areas will stay with their personnel and be ready to evacuate and account for the persons under their supervision.

An "all clear" signal will be given when the fire has been extinguished and the safety of personnel is no longer endangered. The Emergency Coordinator will determine when the emergency has passed and the "all clear" signal can be given. All emergency equipment used in the emergency must be cleaned and fit for use prior to resumption

EMERGENCY PROCEDURE

**FIRE AND/OR EXPLOSION**

**CONTACT EMERGENCY COORDINATOR AND/OR ALTERNATES**

1) EMERGENCY COORDINATOR	John Miele	PLANT PHONE:	575-5851	HOME PHONE:	756-2702
2) FIRST ALTERNATE	Bill Schweiker	PLANT PHONE:	575-5998	HOME PHONE:	879-2837
3) SECOND ALTERNATE	Bob Ardziyauskas	PLANT PHONE:	575-5849	HOME PHONE:	757-6953
4) THIRD ALTERNATE	Frank Cruce	PLANT PHONE:	575-7908	HOME PHONE:	274-6576

**BEEPER NUMBERS:**

- 1) 1-279-8628
- 2) 1-279-8636
- 3) 1-279-8624
- 4) 1-279-8641

**PERSONNEL  
INJURED?**

**YES**

**NO**

**EMERGENCY COORDINATOR OR ALT. CONTACTS THE FOLLOWING:**

HOSPITAL: Waterbury (573-6000)  
HOSPITAL: St. Mary's (574-6000)  
AMBULANCE: Champion (754-3179)  
POISON CONTROL CENTER: (574-6011)

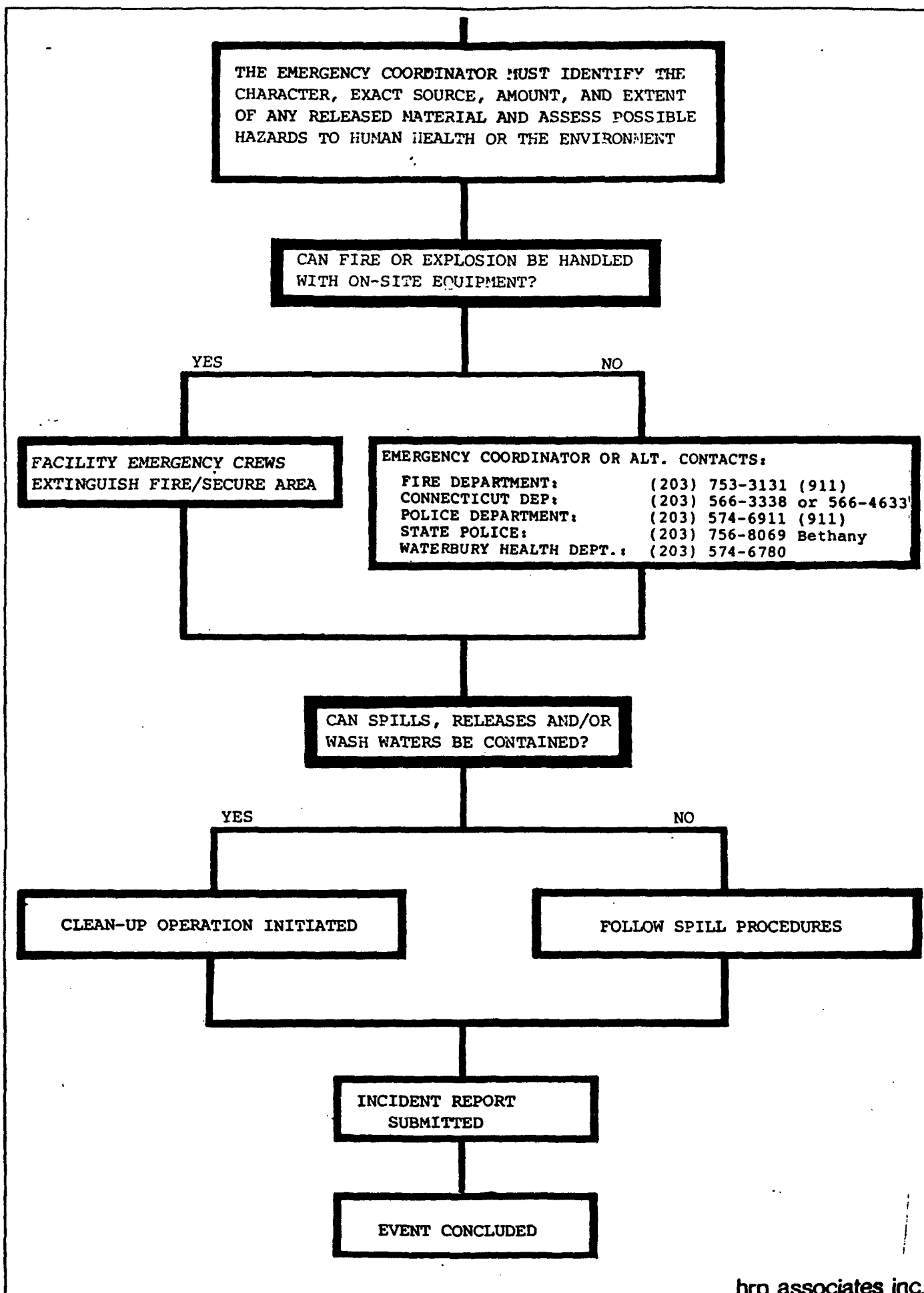
IF NECESSARY, THE EMERGENCY COORDINATOR  
SHOULD ACTIVATE INTERNAL FACILITY ALARMS  
AND/OR COMMUNICATION SYSTEMS TO NOTIFY  
ALL PERSONNEL OF EVACUATION.

- 1) FIRE DOORS IN BUILDING WILL BE CLOSED.
- 2) HAZARDOUS WORK IN ALL AREAS WILL BE SHUT DOWN IMMEDIATELY.
- 3) ALL FEED LINES AND ADDITIONAL EQUIPMENT WILL BE SHUT DOWN, AS NECESSARY AND PRACTICAL.
- 4) THE AREA WILL BE CLEARED OF ALL PERSONNEL NOT ACTIVELY INVOLVED IN FIGHTING THE FIRE. THESE PERSONS ARE TO REPORT TO THE DESIGNATED RALLY POINTS FOR ACCOUNTABILITY.

IDENTIFY CHEMICALS INVOLVED, CHECK INITIAL EMERGENCY  
PROCEDURE FOR SPECIFIC CHEMICAL IN APPENDIX B.

(CONTINUED ON NEXT PAGE)

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of plant operation in the affected areas.

The following flow chart will be used in the event of a fire and/or explosion.

#### 10.5.3 Spills

In the event of a major emergency involving a chemical spill, the following general procedures will be used for rapid and safe response and control of the situation.

##### Response

Each of the group leaders has been informed of the following procedures and everyone should be familiar with them.

1. In the event of a spill of any type or quantity, the group leader is to be informed immediately, if possible.
2. The group leader will dial 7998 for the switchboard operator and tell her to page "Code Red-Huntingdon" or "Code Red-Freight Street".
3. This page will be given first priority; nothing will precede it. The group leaders, every one of them, will report to the Production Manager's office whether or not he is there.
4. People who will respond are John Miele, Bill Schweiker, Bob Ardziyauskas, Fred Comstock, Mike Goewey. While everyone may not be needed, we will at least have established a command post and a reserve of knowledge to respond to the spill and if notification of appropriate outside agencies is required.
5. The person responsible for the spill has several objectives:

First - Contain the spill as best as possible and determine, if possible, product involved.

Second - Block the area with an empty container, fork, lift, any person in the area, etc. to prevent trucks or any vehicles from tracking the material.

Third - Make the notification to the group leader and accompany the group leader to the meeting point.

6. Regardless of who or what or any questions, we are all responsible for clean up if needed. This will be decided by whomever assumes control at the command post.

IN ACCORDANCE WITH STATE REGULATIONS, ALL SPILLS OR MATERIAL RELEASES MUST BE REPORTED IMMEDIATELY TO THE CONNECTICUT DEP SPILL EMERGENCY RESPONSE LINE (203) 566-3338.

For all large spills or serious leaks, the following guidelines will be followed as closely as possible.

1. If a leak develops or a spill emanates from a waste storage area, the person discovering the discharge will leave the immediate area and contact the Emergency Coordinator. The Emergency Coordinator will obtain the following information:
  - a. Person(s) injured and seriousness of injury.
  - b. Location of the spill or leak, material involved, and source.
  - c. The approximate amount spilled, an estimate of the liquid and/or gas discharge rate, and the direction the liquid flow or gaseous cloud is moving.
  - d. Whether or not a fire is involved.

2. Next, the Emergency Coordinator will:

- a. Initiate evacuation of the hazard area. For small spills or leaks, isolate at least 50 ft. in all directions. For large spills, initially isolate at least 100 ft. in all directions and keep all personnel upwind of spill.
- b. Call the fire department or ambulance for any injured persons. It may be helpful to instruct the caller in initial first aid procedures. Then call the hospital.
- c. Call the fire department if a fire is involved that cannot be extinguished by plant personnel. Fight a small fire with dry chemicals, carbon dioxide, or foam, and large fires with water spray, fog, or foam. Keep heat-exposed containers cooled with water spray and remove them from the fire if possible. IF A HISSING SOUND COMES FROM A VENTING DEVICE OR THE DRUM BEGINS TO DISCOLOR, WITHDRAW FROM THE AREA IMMEDIATELY.
- d. Dispatch emergency personnel to the site to take the appropriate action.
- e. Contact the proper authorities if the spill or release is large. Contact local authorities first so that, if necessary, downstream water users and/or persons downwind of the vapor can be notified and, if necessary, evacuated. If a large spill occurs, the initial evacuation area downwind should be 0.2 mile long (1000 feet), by 0.1 mile wide (500 feet). If a tank containing waste becomes involved in a fire, isolate an area one-half mile in all directions.

(3) Spill Clean-up

Chemical spills will be cleaned up as quickly as possible after the incident. The Emergency Response Coordinator will direct all clean-up operations. All clean-ups will be conducted in accordance with all federal, state and local regulations. All clean-up personnel will be required to use the proper protective clothing and equipment during clean-up operations.

- a. Make sure all unnecessary persons are removed from the hazard area.
- b. Put on protective clothing and equipment.
- c. If flammable waste is involved, remove all ignition sources, and use spark and explosion proof equipment and clothing in containment and clean-up.
- d. If possible, try to stop the leak. Special materials will be kept on-hand for temporary repairs.
- e. Remove all surrounding materials that could be especially reactive with the materials in the waste. Determine the major components in the waste at the time of the spill.
- f. Use absorbent pads, booms, earth, sandbags, sand, and other inert materials to contain, divert and clean up a spill if it has not been contained by a dike or sump. Most spills contained within a dike or sump can be pumped back into the appropriate storage tank or drum.
- g. Procedure for Organic Solvent Spills (includes halogenated solvents)
  1. Soak up small spills with Speedi-Dri or Vermiculite.

2. Wear protective equipment including, but not limited to rubber gloves, and boots, protective suits and organic vapor respirators.
3. Do not enter confined areas without **SELF-CONTAINED BREATHING APPARATUS**.
4. Spent or used absorbent will be shoveled into approved 17E/17H open-head drums for subsequent disposal per state and federal regulations.

h. Procedure for Acid Spills

1. All acid spills will be neutralized with bagged lime or soda ash or other appropriate material.
  2. Same procedures as "A" above will apply, regarding protective equipment entering confined areas and spent absorbents.
- (4) In the event that a spill results in soil contamination, the Emergency Coordinator will contact:

HRP Associates, Inc.  
10 Lexington Street  
P. O. Box 732  
New Britain, Connecticut 06050

(203) 827-0004

HRP Associates will dispatch specially trained geologists and environmental engineers to coordinate clean-up to prevent contamination from reaching ground water. The soil will be removed by a licensed hazardous waste transporter to a permitted disposal site. Soil samples will be analyzed and soil removed until all contamination is removed. In conjunction with EPA, MacDermid, Inc. will determine if ground water sampling/monitoring is required. If it is, HRP Associates

hrp associates inc.



will submit a sampling/monitoring plan for EPA approval. Further actions will be coordinated with EPA.

5. The following flow chart will be used in the event of a spill and/or release of hazardous material.

10.5.3.1 In Case of Serious Injury

1. Alert other persons in the area by voice.
2. Go to the nearest phone - dial 7998 to reach the MacDermid operator.
3. Tell the operator that you are reporting a serious injury and give the following information:
  - a. Your name.
  - b. As much information as you have on the nature of the injury.
  - c. The exact location of the injured person.
  - d. An exact location of where our employee will meet the ambulance.
  - e. An indication of whether any first aiders are on the scene.

Do not hang up unless told to do so. If for any reason the operator does not pick up, dial 9-911 and give the same information to the city dispatcher.

At the same time this emergency call is being made:

4. At least one person must stay with the injured employee. If the injury is from chemical exposure to the skin or eyes, assist the injured person to an eyewash/shower and flush the affected area with water for at least 15 minutes. If the injured person is in an area where he/she is in danger of further injury, try to remove the hazard. If this is not possible, move the injured person. If possible, the injured person should be moved only by a trained first aider.

## EMERGENCY PROCEDURE

### SPILL AND/OR RELEASE OF HAZARDOUS MATERIAL

#### CONTACT EMERGENCY COORDINATOR AND/OR ALTERNATES

1) EMERGENCY COORDINATOR	John Miele	PLANT PHONE:	575-5851	HOME PHONE:	756-2702
2) FIRST ALTERNATE	Bill Schweiker	PLANT PHONE:	575-5998	HOME PHONE:	879-2837
3) SECOND ALTERNATE	Bob Ardziyauskas	PLANT PHONE:	575-5849	HOME PHONE:	757-6953
4) THIRD ALTERNATE	Frank Cruce	PLANT PHONE:	575-7908	HOME PHONE:	274-6576

#### BEEPER NUMBERS:

- 1) 1-279-8628
- 2) 1-279-8636
- 3) 1-279-8624
- 4) 1-279-8641

PERSONNEL  
INJURED?

YES

NO

#### EMERGENCY COORDINATOR OR ALT. CONTACTS THE FOLLOWING:

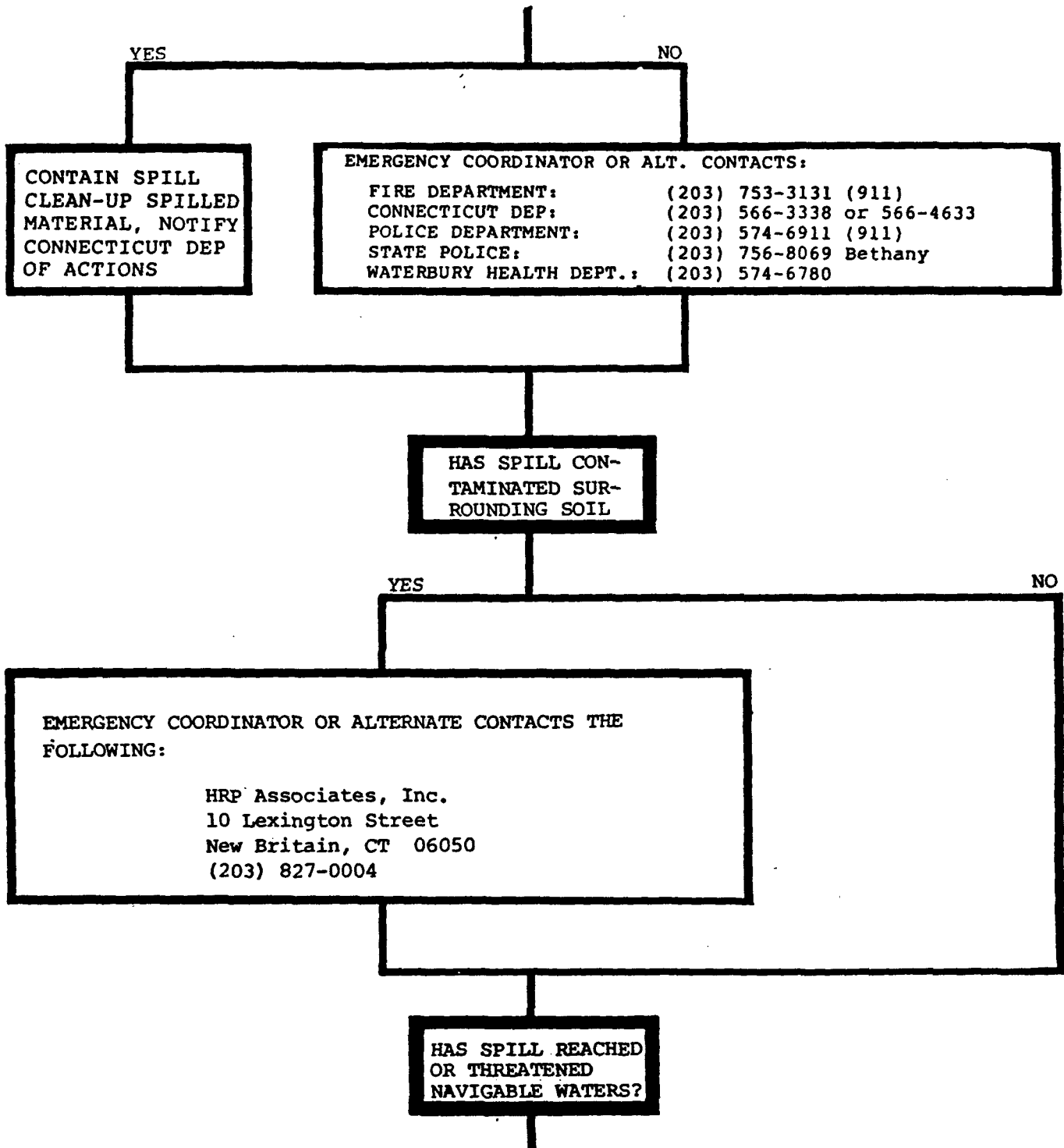
HOSPITAL: Waterbury (573-6000)  
HOSPITAL: St. Mary's (574-6000)  
AMBULANCE: Champion (754-3179)  
POISON CONTROL CENTER: (574-6011)

IF NECESSARY, THE EMERGENCY COORDINATOR  
SHOULD ACTIVATE INTERNAL FACILITY ALARMS  
AND/OR COMMUNICATION SYSTEMS TO NOTIFY  
ALL PERSONNEL OF EVACUATION.

IDENTIFY CHARACTER OF SPILLED CHEMICAL, CHECK  
INITIAL EMERGENCY PROCEDURE FOR PARTICULAR CHEMICAL  
IN APPENDIX B.

IS SPILL SMALL ENOUGH  
TO BE HANDLED ON-SITE?

(CONTINUED ON NEXT PAGE)



(continued on next page)

YES

NO

EMERGENCY COORDINATOR OR ALTERNATE CONTACT THE FOLLOWING:

U.S. EPA REGION I  
RESPONSE CENTER  
(24-hour emergency number)

(617) 472-3815

NATIONAL RESPONSE CENTER

(800) 424-8802

SPILL CONTAMINATED  
MATERIAL CLEANED-  
UP AND PROPERLY  
DISPOSED.

SPILL INCIDENT  
REPORT SUBMITTED

EVENT CONCLUDED

5. At least one person should locate trained first aider(s) to further assist and monitor the injured person.
6. At least one person must go to the street at the entrance that gives the most direct access to the injured person and direct the ambulance crew to the injured person.
7. Notify the top manager on-site of the injury.
8. If the injury was due to a fire or chemical spill, follow the procedures for those emergencies also.

#### 10.5.4 Floods

Due to the geographic location of the MacDermid Corporation facility the potential for flooding exists only if greater than a 100 year flood occurs (see Section 12.0). If such a flood occurs, the following steps should be taken:

1. Check with the National Weather Service or the Army Corps of Engineers for a projected flood crest.
2. If the crest will result in less than one foot of water in the drum area, the area will be diked with sandbags up to a level one foot over the projected level.
3. If the crest will result in more than one foot of water in the drum area, the waste will be removed to a waste disposal facility.
4. The following flow chart will be used in the event of a spill and/or release of hazardous materials.

POTENTIAL FOR FLOOD EXISTS

CONTACT EMERGENCY COORDINATOR AND/OR ALTERNATES

1) EMERGENCY COORDINATOR	John Miele	PLANT PHONE:	575-5851	HOME PHONE:	756-2702
2) FIRST ALTERNATE	Bill Schweiker	PLANT PHONE:	575-5998	HOME PHONE:	879-2837
3) SECOND ALTERNATE	Bob Ardziyauskas	PLANT PHONE:	575-5849	HOME PHONE:	757-6953
4) THIRD ALTERNATE	Frank Cruce	PLANT PHONE:	575-7908	HOME PHONE:	274-6576

BEEPER NUMBERS:

- 1) 1-279-8628
- 2) 1-279-8636
- 3) 1-279-8624
- 4) 1-279-8641

CHECK WITH THE NATIONAL WEATHER SERVICE FOR A PROJECTED FLOOD CREST.

NAT'L WEATHER SERVICE (RIVER FORECAST) (203) 722-2014

IF THE CREST WILL RESULT IN LESS THAN ONE FOOT OF WATER IN THE WASTE STORAGE AREA(S), THE AREA WILL BE DIKED WITH SANDBAGS UP TO A LEVEL OF ONE FOOT OVER THE PROJECTED LEVEL.

IF THE CREST WILL RESULT IN MORE THAN ONE FOOT OF WATER IN THE WASTE STORAGE AREA(S), THE WASTE WILL BE REMOVED TO A SECURE LOCATION.

IF THE WASTE CANNOT BE CONTAINED,  
SEE THE SPILL FLOW CHART

## 10.6 Emergency Equipment/Containment Structures

[40 CFR Section 264.52(e)]

Location of emergency equipment is shown on Figure 10.1 and briefly described on Table 10.2. All existing equipment should be periodically checked and maintained.

The hazardous waste materials stored on-site and associated fire fighting equipment and techniques, personnel safety equipment needs, and potential health hazards are described in Table 10.1.

Spills and leaks from the container storage and handling areas, tank storage areas, loading/unloading areas, containment pit, and treatment area will be contained by virtue of specially designed containment systems. All wastes handled at MacDermid, Inc. are compatible, therefore, segregation of wastes and clean-up of a spill/leak/fire is not a concern.

### 10.6.1 Emergency Equipment Cleaning

When any of the emergency equipment shown on Table 10.2 is used in the clean-up/mitigation of a hazardous waste release, this equipment must be cleaned and replenished (if necessary) as soon as possible. Cleaning of equipment will be in accordance with manufacturers' instructions under the direction of the Plant Manager.

All material used in the cleaning of equipment contaminated with hazardous waste and all single use or unsalvagable emergency equipment will be placed in an appropriate container, manifested and transported to a permitted hazardous waste disposal facility.

The Emergency Coordinator will ensure that after use in the implementation of this Contingency Plan that all emergency equipment and systems described in this plan are cleaned or refurbished and fit for use before resumption of facility operation.



TABLE 10.2

EMERGENCY EQUIPMENT

<u>Item</u>	<u>Description/Capabilities</u>	<u>Location</u>
Absorbent Material	Clay-like material used to absorb and contain spill of liquid material.	See Figure 10.1
Fire Extinguishers	Wall-mounted portable fire fighting apparatus. The following types of fire extinguishers are used: ABC - for all types of fires.	See Figure 10.1
Telephone System	Capable of internal and external communication.	See Figure 10.1
Rubber Gloves	Rubber gloves for protection against harmful materials	Throughout Facility
Goggles and Protective Glasses	Plastic eye covering used for protection from splashes and flying objects	Throughout Facility
Shovels	Tool having a broad blade or scoop attached to a long handle, used for spill clean-up	See Figure 10.1
Scott Air Pack	NIOSH approved; self-contained breathing apparatus providing 30 minutes of portable oxygen for working in toxic environments	See Figure 10.1
Oxygen Masks	Full face masks that attach to air cylinder or clean air lines for working in toxic environments	See Figure 10.1
5-Minute Life Line	Self-contained breathing apparatus providing 5 minutes of oxygen for working in toxic environment	See Figure 10.1
Emergency shower/ Eye Wash	Provide flooding sprays of potable water from a height of approximately 7' to flush chemicals splashed onto body	See Figure 10.1

TABLE 10.2 (continued)

EMERGENCY EQUIPMENT

<u>Item</u>	<u>Description/Capabilities</u>	<u>Location</u>
Respirators/ Cartridges	Disposable cartridges of fiber and charcoal filters to remove particulates and certain toxics from air before inhalation.	See Figure 10.1
First Aid kit	Wall mounted cabinet containing bandages, aspirins, other first aid equipment used for assisting injured workers	See Figure 10.1
Chemical Suits	Protective clothing designed for full body protection against splashes of hazardous liquids	See Figure 10.1
Alarm System	Electronic, wall-mounted fire alarm box for signaling local alarm only.	See Figure 10.1
CB Communication System	Portable, hand-held CB's for internal and external communication.	See Figure 10.1

## 10.7 Evacuation Plan

### 10.7.1 Evacuation Procedures

All emergencies require prompt and deliberate action. In the event of any major emergency, it will be necessary to follow an established set of procedures. Such established procedures will be followed as closely as possible; however, in specific emergency situations, the Emergency Coordinator may deviate from the procedures to provide a more effective plan for bringing the situation under control. The Emergency Coordinator is responsible for determining which emergency situations require plant evacuation.

MacDermid, Inc. employs an internal telephone and paging system. Specific instructions can be given over the facility's paging system. Key plant personnel can be contacted through the internal telephone and paging system. Total plant evacuation is initiated only by an Emergency Coordinator.

In the event plant evacuation is called for by the Emergency Coordinator, the following actions will be taken:

1. The signal for plant evacuation will be activated (warning followed by instructions over paging system).

2. All vehicle traffic within the plant will cease, to allow safe exit of personnel and movement of emergency equipment.
3. All personnel, visitors and contractors will immediately leave the facility area.
4. No persons shall remain or re-enter the location unless specifically authorized by the person(s) calling for evacuation. In allowing this, the person in charge assumes responsibility for those persons within the perimeter.
5. All persons will be accounted for by their respective Supervisors. Supervisors will designate certain doors as the safest exits for his/her employees and will also choose an alternate exit if the first choice is inaccessible. To assist in this endeavor, the Emergency Coordinator will use the internal telephone system to call the Supervisors to inform them of the nature of the emergency.
6. During exit, Supervisors should try to keep his/her group together. Rally points for specific areas are shown on Figure 10.2.
7. No attempt to find persons not accounted for will involve endangering lives of others by re-entry into emergency areas.
8. Re-entry into the area will be made only after clearance is given by the Emergency Coordinator. At his direction, a signal or other notification will be given for re-entry into the plant.
9. In all questions of accountability, Supervisors will be held responsible for those persons reporting to them. Visitors will be the responsibility of those employees they are seeing. Contractors are the responsibility of those persons administering the individual contracts.
10. Drills will be held semi-annually to practice all of these procedures and will be treated with the same seriousness as an actual emergency.

**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID #** 100853

**Facility Name:** MACDERMID INC

**Facility ID#:** CTD001164599

**Phase Classification:** R-1B

**Purpose of Target Sheet:**

☒ **Oversized (in Site File)**      ☐ **Oversized (in Map Drawer)**

☐ **Page(s) Missing (Please Specify Below)**

☐ **Privileged**                      ☐ **Other (Provide  
Purpose Below)**

**Description of Oversized Material, if applicable:**

**FIGURE 10.2: EVACUATION ROUTES**

☒ **Map**      ☐ **Photograph**      ☐ **Other (Specify Below)**

**\* Please Contact the EPA New England RCRA Records Center to View This Document \***

### 10.7.2 Evacuation Routes

Evacuation routes are shown on Figure 10.2. Employees are familiarized with these routes and will take the most accessible route. There is no one specific route for a given employee, thus there are no specific alternate routes.

### 10.8 Shut-Down of Operations

#### PRODUCTION BUILDING

Reclaim Department: Shut off transfer operations, valves and pumps.

Bulk Etch Storage: Turn off valves and pumps before leaving area.

Liquid Department: Turn off all operations involving transfer pumping or filtration and mixtures. Turn off all heaters and mixing equipment.

Macuplex Department: Same as Liquid Dept.

Pilot Department: Same as Liquid Dept.

Dry Mix: Shut down blending operation. LEAVE BLOWERS ON. Shut down pump transfer operations.

Shipping/Receiving: Pull out trucks.

Office Areas: Electrical Blackouts  
Turn off all typewriters and copier machines.

Computer Equipment: Turn off all computer terminals to avoid power surge.

Q.C./Lab: Turn off all gas burners and electric heaters.  
LEAVE HOOD VENTS ON.

NOTE: ELECTRICITY AND SCRUBBERS, UNLESS TOLD OTHERWISE BY PLANT MANAGER, FIRE CHIEF OR OTHER FIRE DEPARTMENT OFFICIAL, KEEP SCRUBBERS AND ELECTRICITY ON.

#### GEAR STREET

Office Area:	Turn off typewriter and copier machine including during electrical blackouts.
Ink Lab	Bunson burners, solder pot, pressure chamber (pressure cooker).
Ink Production:	Shut down any transfers; turn off equipment.
Micro Production:	Shut off pumps, transfer pumps and valves on tanks.
Pilot Lab Area:	Shut off all transfer pumps. If reactor in use - turn it to <u>cooling</u> . <u>DO NOT TURN REACTOR OFF.</u>

NOTE: ELECTRICITY AND SCRUBBERS, UNLESS TOLD OTHERWISE BY PLANT MANAGER, FIRE CHIEF OR OTHER FIRE DEPARTMENT OFFICIAL, KEEP SCRUBBERS AND ELECTRICITY ON.

#### GAS CONTROLS

In the event of a fire, the gas controls should be shut off, if possible, at the Production and Gear Street building by:

---

Locations: 1 Near East side of plant (near Dry Mix Area outside building)

1 by Liquid Mix Area - Main shut-off, inside.

#### ELECTRICAL FEED PANELS/CONTROL CIRCUITS

Locations: Production: Far East end of plant near dry Mix inside near exit door.

Far West end of plant in  
bulk storage area (etch,  
etc.) - inside.

Gear Street: Micro .roduction - North  
wall Surfactant Library

Ink Production - In vault  
on East Aurora Avenue.

#### SPRINKLER VALVE CONTROL

Maintenance: The entire plant is protected by a  
sprinkler system which is monitored  
by ADT. In the event of a fire,  
the sprinkler system, would come on  
and send an alarm to ADT who would  
then notify the Fire Department.

When the fire is under control,  
assigned personnel are to shut off  
the sprinkler valve(s) to minimize  
damage. They are to remain at the  
valve(s) in the event the fire  
should erupt again.

Job Description: The automatic sprinkler system is  
the plant's and Gear Street's main  
line of fire defense. But unless  
the valves controlling the flow of  
water to the sprinklers are open  
when fire strikes and remain open  
until the fire is controlled, sprin-  
klers are useless. Even though a  
valve is locked open, the valve  
control man goes to the valve to  
make sure it is open and remains to  
close as soon as possible to mini-  
mize water damage.

#### LOCATION(S) OF VALVES:

Production: Outside - 3 outside on Huntingdon  
Avenue side.

- 1 - near Truck Garage
- 1 - near NE end of plant
- 1 - near Liquid Mix Area

New Warehouse: 1 - near Tank Farm  
1 - near Ammonia Tank



Gear Street:     1 - outside near front door  
                  1 - inside near Micro Dept. Entrance  
                  1 - along E. Aurora (Outside)

### SPRINKLER CONTROL VALVE MAN

#### DUTIES

A. Location of valves

The valve control man must know the location of every valve to which he is assigned and know the plant area which each controls.

B. Manually try valve

He must know how to operate the valve, how to try it; and know where the valve wrench and padlocks are kept which should be at the valves.

C. When the alarm sounds

The valve control man goes to the valve controlling sprinklers for the fire area. He will unlock it to "try" it to make sure it is open.

D. Stand guard by the valve during the fire, keep it open and prevent anyone from shutting the valve without authorization from the Fire Chief. The valve is to be shut only by command of the Fire Chief.

E. The control valve man stands by prepared to re-open the valve for as long as the Chief considers necessary.

F. After the incident

The control valve man works in conjunction with the pipe fitter to restore normal sprinkler protection after the incident.

#### COMPLICATING FACTORS

1. Distance to valves.
2. Keys to locks as needed (boltcutter).
3. Knowledge of protection system (system documented).
4. All valves covered, and back-up available if valve man is temporarily absent.

## 10.9 Reporting of Emergency Incidents

[40 CFR Sections 264.56(i) and 264.56(j)]

After an emergency, within seven (7) days, the Emergency Coordinator must report to the following agencies:

Connecticut Department of Environmental Protection  
State Office Building  
165 Capitol Avenue  
Hartford, Connecticut 06106

Regional Administrator  
U.S. Environmental Protection Agency  
JFK Federal Building  
Boston, Massachusetts 02203

The report must include:

- Name, address and telephone number of the owner/operator;
- Name, address and telephone number of the facility;
- Date, time and type of incident (e.g. fire, explosion);
- Name and quantity of material(s) involved;
- The extent of injuries, if any;
- An assessment of actual or potential hazards to human health or the environment, where applicable;
- Estimated quantity and disposition of recovered material that resulted from the incident;
- All differences between the emergency response activities actually taken and those prescribed in the contingency plan and the reasons for each such difference; and
- Proposed measures to prevent similar incidents in the future.

Operations at MacDermid, Inc. shall not be resumed until MacDermid, Inc. notifies the Connecticut DEP that the facility is in compliance with 40 CFR Section 264.56(h), and the Connecticut DEP provides a written determination that operations may resume.

10.10 Contingency Plan Review/Location

[40 CFR Section 264.54]

Under the following conditions, the Contingency Plan should be reviewed and revised.

- (1) The facility license is revised;
- (2) The plan fails in an emergency;
- (3) The list of emergency coordinators changes;
- (4) The list of emergency equipment changes;
- (5) There is any change in the operation or maintenance of the facility; or
- (6) There occurs any other circumstance which indicates the need for a change in the contingency plan.

Whenever this plan is amended, the amended plan shall be submitted to the Connecticut DEP for approval.

New employees will be familiarized with all emergency response procedures. It is also recommended that an annual review should be made to update the Contingency Plan. The Emergency Coordinator at MacDermid, Inc. will be responsible for updating the plan as necessary, and distributing the updated plant to plant personnel, local authorities and the Connecticut DEP.

#### 10.9.2 Location

Copies of the Contingency Plan will be kept at four (4) locations at MacDermid, Inc.

- 1) Main Office
- 2) Warehouse Office
- 3) Hazardous Waste Coordinator's Office
- 4) Plant Supervisor's Office

#### 10.11 Arrangements with Local Authorities

[40 CFR Sections 264.52(c) and 264.53]

State and Federal regulations require arrangements be agreed to by local police and fire departments, hospitals, contractors, and State and local emergency response teams. In fulfillment of the requirements of this part, MacDermid, Inc. has made agreements that include:

Arrangements to familiarize the police and fire departments with:

- The layout of the facility
- Properties and hazards associated with the wastes handled at the facility
- Places where facility personnel would normally be working
- Entrances to the facility
- Evacuation routes

Agreements have been made with the Connecticut DEP Emergency Response Unit to provide support, as needed, during an actual emergency. Arrangements have been made with the St. Mary's and Waterbury Hospitals to familiarize their personnel with the properties of wastes handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

Said departments, agencies, and emergency response personnel will be requested to provide those services described below in the event of an actual emergency.

Each of the above agencies has or will be contacted and sent copies of MacDermid, Inc.'s Contingency Plan. The following arrangements are in place:

The Waterbury Police Department will provide the following assistance during an emergency:

- Primary emergency authority
- Immediate response
- Emergency transport services
- Crowd control assistance
- Communications support
- Security to affected area
- Evacuation of surrounding areas, if required.

The Waterbury Fire Department will provide:

- Primary emergency authority
- Immediate response
- Primary fire fighting services
- Rescue and emergency transport services
- Communications support

Waterbury and St. Mary's Hospitals have received a copy of the Contingency Plan and will provide:

- Primary medical services
- Rescue services

## 11.0 OPERATING RECORD

### 11.1 Introduction [40 CFR Section 264.73]

Owners or operators of TSDFs are required, under 40 CFR Section 264.73, to keep a written operating record on site until closure of the facility. The information which must be recorded and maintained in the operating record for MacDermid, Inc. is the following:

- Description and the quantity of each hazardous waste received and the method(s) and date(s) of its treatment, storage at the facility or shipment off site.
- Location and quantity of hazardous waste within the facility and corresponding manifesting numbers.
- Records and results of waste analyses and trial tests performed as specified in Sections 264.13, 264.17 and 264.31.
- Summary reports and details of all incidents that require implementing the contingency plan as specified in Section 264.56(j).
- Records and results of inspections as required by Section 264.15(d).
- Training records on current and former personnel as required by Section 264.16(e).
- Copies of manifest forms accompanied by hazardous waste shipments received or shipped from the facility as required by Section 264.71(b)(5).
- Monitoring, testing, or analytical data where required by Sections 264.90, 264.94, 264.276, 264.278, 264.280(d)(1), 264.347, and 264.377.
- All closure cost estimates under Section 264.142.
- Notices to generators as specified in 264.12(b).

## 11.2 Recordkeeping of Type and Quantity of Hazardous Waste

At MacDermid, Inc., hazardous wastes are stored in containers and tanks. The general location of the storage facilities (container storage areas, loading/unloading areas and storage tanks) employed at this facility are shown on Figure 2.1.

To maintain a continuous record of the type and quantity of hazardous waste received at, recycled, and shipped from this facility, the following Operating Logs are used:

- Log A1 - Main Container Storage Area Running Inventory (see Figure 11.2.1).
- Log A2 - Micro Storage Area Running Inventory (see Figure 11.2.2).
- Log A3 - Flammable Material Storage Area Running Inventory (see Figure 11.2.3).
- Log B1 - Waste Storage Tank - Running Inventory, Tank #1 (see Figure 11.2.4).
- Log B2 - Waste Storage Tank - Running Inventory, Tank #2 (see Figure 11.2.5).
- Log B3 - Waste Storage Tank - Running Inventory, Tank #3 (see Figure 11.2.6).
- Log B4 - Waste Storage Tank - Running Inventory, Tank #4 (see Figure 11.2.7).

### 11.3 Manifest Recordkeeping

[40 CFR Sections 264.71(a)(5) and 265.73(b)(2)]

All hazardous waste received and shipped off-site must be accompanied by a properly completed manifest, and disposed of at a permitted facility.

As required under Section 264.71(a)(5), copies of the completed manifest must be retained at the facility for at least three (3) years from the date of receipt. Under the Uniform Manifest System, copies 3 and 8 must be kept for all wastes disposed of off site and copy 4 for all waste received on site.

In addition, as required under Section 264.73(b)(2), manifest document numbers must be included in the operating record for cross-reference. As discussed in Section 11.2, all manifest numbers will be recorded on the appropriate Running Inventory Log.

### 11.4 Laboratory Analysis Records

[40 CFR Sections 264.13 and 265.73(b)(3)]

Records of waste analysis are updated after each analysis is performed. These results are maintained for the life of the facility and safely stored for future reference.

#### 11.4.1 Hazardous Waste Analysis

A file is kept individually for each waste generator.



A copy of each analytical result will be kept in the generator's file for each sample of a generator's wastes.

#### 11.5 Facility Inspection Records

[40 CFR Sections 264.15(d) and 264.73(b)(5)]

The facility inspection procedures are outlined in the Hazardous Waste Inspection Plan, Section 7.0 of this Permit Application.

Records of these inspections are kept on-site for three years from the date of inspection. Sample inspection records are provided in Section 7.0.

#### 11.6 Contingency Plan Implementation

[40 CFR Sections 2674.56(j) and 264.73(b)(4)]

Contingency procedures are described in the Contingency Plan in Section 10.0 of this Permit Application.

A brief report outlining any actions taken if an emergency requiring implementation of the Contingency Plan takes place should be written and filed in this record by the Emergency Coordinator. This report should include all agencies contacted, extent of the emergency and any remedial action taken.

Ordinarily, the Contingency Plan will be implemented in the following situations:

(1) Fire and/or Explosion

- a. A fire causes the release of toxic fumes.
- b. The fire spreads and could possibly ignite materials at other locations on-site or could cause heat-induced explosions.
- c. The fire could possibly spread to off-site areas.
- d. Use of water or water and chemical fire suppressant could result in contaminated runoff.
- e. An imminent danger exists in that an explosion could occur, causing a safety hazard because of flying fragments or shock waves.
- f. An imminent danger exists that an explosion could ignite other hazardous waste at the facility.
- g. An imminent danger exists that an explosion could result in release of toxic material.
- h. An explosion has occurred.

(2) Spills or Material Release

- a. The spill could result in release of flammable liquids or vapors, thus causing a fire or gas explosion hazard.
- b. The spill could cause the release of toxic liquids or fumes.
- c. The spill can be contained on-site, but the potential exists for ground water contamination.
- d. The spill cannot be contained on-site, resulting in off-site soil contamination and/or ground or surface water pollution.

(3) Floods

- a. The potential exists for surface water contamination.

11.7 Training Plan Records

[40 CFR Section 264.15(d)(4)]

A list must be kept in the operating record of each job title at the plant and the name of the person filling the position.

A document must be kept in the operating record of the training provided to each employee. The training record must be kept until closure. Training records on former employees must be kept for at least 3 years from termination of employment.

A list of job titles at MacDermid, Inc. and the name of person filling the position is included in Section 8.0.

11.8 Ground Water Monitoring/Testing/Analytical Data

[40 CFR Section 264.73(b)(6)]

MacDermid, Inc. is not an owner or operator of a surface impoundment, landfill, land treatment facility or incinerator, therefore, is not required to comply with the regulations presented under Sections 264.90, 264.94, 264.276, 264.278, 264.280(d)(1), 264.347 or 264.377.

11.9 Closure Cost [40 CFR Section 264.73(b)(8)]

Closure cost for the MacDermid, Inc.'s hazardous storage and treatment facilities are outlined in the Closure Plan, Section 13.0 of this Permit Application.

Verification of assurance for the closure costs is included in Section 14.0 of this Permit Application.

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RETAIN FOR 3 YEARS

## INSTRUCTIONS

## OPERATING RECORD

LOG A1

MACDERMID:

## MAIN CONTAINER STORAGE AREA - RUNNING INVENTORY

17564

41930 = Cu Etchant - D002\*

41931 = Chrome Sol. - D007\*

41933 = 7595/7533 - D008\*

41934 = 7526/7533 - D008\*

Electroless Cu\*

**True Wastes\***

(Name as Ni,

Lead Fluoride, etc.

\*WHEN MACDERMID TRANSHIPS,  
WE ACT AS NEW GENERATOR

[illegible]

Figure 11.2.1

**MICRO STORAGE AREA - RUNNING INVENTORY**

## WASTE LOG

M-Pyrol  
Amberlyst/Stripper

**STORAGE  
LOCATION**

S = Solvents Room

SOI = Container Storage

[illegible]

Figure 11.2.2



TANK:                      Volume in Gallon

Figure 11.2.4

TANK:                      Volume in Gallon

[illegible]

Figure 11.2.5







## 12.0 ENGINEERING DESCRIPTION

[40 CFR 264.18, 264.191, 264.192, 264.198, 264.199, 270.14(b)(10), 270.14(b)(11), 270.1(b)(19), 270.14(b)(20), 270.15, and 270.16]

### 12.1 Traffic [40 CFR 270.14(b)(10)]

#### 12.1.1 Traffic Volume

The estimated volume of traffic received at the main loading and unloading dock for containerized waste will average six (6) semi-tractors or trailers per week. The semi-tractors and trailers are capable of transporting 80, 55 gallon drums each.

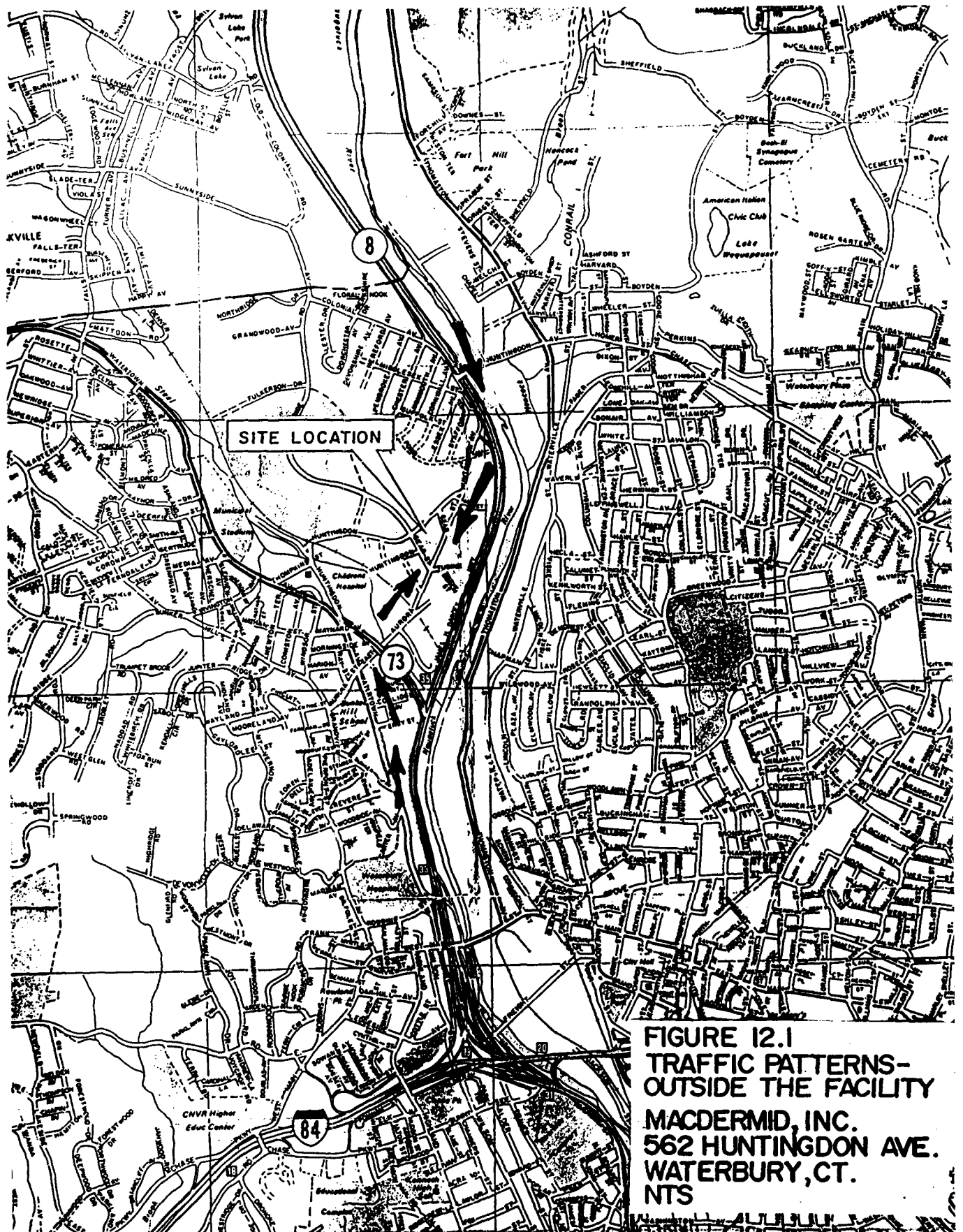
The estimated volume of traffic received at the waste storage tanks will average six (6) tankers per week. The approximate storage capacity of the tanker is 4,500 gallons.

#### 12.1.2 Traffic Patterns

Access to Huntingdon Avenue, East Aurora Street and Gear Street, which are the roads that surround the MacDermid plant is provided by Route 8 (See Figure 12.1). Route 8 which is classified as an interstate highway that runs north to south through the State of Connecticut can be accessed from the east and west via Route 84.

Trucks approaching from the south will take Exit 35 off Route 8 to Route 73 north (Watertown Avenue). On Watertown Avenue

hrp associates inc.



**FIGURE 12.1**  
**TRAFFIC PATTERNS-**  
**OUTSIDE THE FACILITY**  
**MACDERMID, INC.**  
**562 HUNTINGDON AVE.**  
**WATERBURY, CT.**  
**NTS**

where the posted speed limit is 40 mph, the trucks will travel approximately 2/10 of a mile to the first traffic light. At this traffic light, the trucks will turn right onto East Aurora Street and travel approximately 3/10 of a mile to the Gear Street intersection. The posted speed limit on East Aurora Street is 25 mph. At this intersection, the container trucks (containing free liquids) will continue travelling on East Aurora Street approximately 500 feet and turn left onto MacDermid's property at the first or second entrance gate. At this intersection, tankers and roll-off transporters will take a left onto Gear Street and travel approximately 1/10 mile to Huntingdon Avenue. At the stop sign, the trucks will turn right onto Huntingdon Avenue and travel approximately 250 feet before turning right onto MacDermid's property.

Trucks approaching from the north will take Exit 36 off Route 8 to Colonial Avenue, turn left and intersect with Huntingdon at the traffic light. From the exit ramp, the trucks will travel approximately 2/10 of a mile in a southerly direction to the .

Huntingdon Avenue and East Aurora Street intersection. At this intersection, the container trucks (containing free liquids) will bear left onto East Aurora Street and travel approximately 2/10 of a mile to the entrance gates located on the right. At this intersection, the tankers and roll-off transporters will continue travelling on Huntingdon Avenue approximately 2/10 of a mile to the entrance gate located on the left.

12.1.3 Access Roads

All traffic will approach MacDermid, Inc. using one or more of the following access roads, Huntingdon Avenue, East Aurora Street and Gear Street. These bituminous asphalt roads per the City of Waterbury's Engineering Department have no design weight limit. The maximum allowable weight on Route 8 per CT-DOT is 80,000 pounds.

East Aurora Street and Huntingdon Avenue are heavily travelled during the morning and evening rush hours and moderately travelled during the day by private as well as commercial vehicles. Gear Street which connects East Aurora Street and Huntingdon Avenue is lightly to moderately travelled.

#### 12.1.4 Container Trucks Entering the Site

Container trucks (containing free liquids) which will enter the site via the two gates located on East Aurora Street (see Figure 12.2) and park adjacent to the loading/unloading dock. The driver will then report to the warehouse office with his appropriate paperwork (manifest). Upon approval from the warehouse personnel and/or office personnel, the driver will be instructed to proceed to the container loading/unloading dock.

The container loading/unloading dock consists of a sloped concrete floor. Any spills within this area will be contained by virtue of the sloped concrete floor, concrete berm along the doors and masonry block walls.

When the truck is loaded/unloaded, the driver will pick-up his completed paperwork (manifest) from the shipping/receiving office and exit the site via the two gates. To connect with Route 8 North, the driver will turn left when leaving the site, travel approximately 6/10 of a mile on Huntingdon Avenue which passes over Route 8 and turn left onto the entrance ramp just after the Route 8 over-

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**RDMS Document ID #** 100853

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**Facility ID#:** CTD001164599

**Phase Classification:** R-1B

**Purpose of Target Sheet:**

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**Description of Oversized Material, if applicable:**

**FIGURE 12.2: INTERNAL TRAFFIC PATTERNS**

☒ **Map**      ☐ **Photograph**      ☐ **Other (Specify Below)**

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pass. To connect with Route 8 South, the driver can exit the site as follows:

- o turn left when leaving the site, travel approximately 3/10 of a mile on Huntingdon Avenue and turn right onto the exit ramp; and
- o turn right when leaving the site, travel approximately 3/10 of a mile on East Aurora Street and turn left onto Route 73 South (Watertown Avenue) at the traffic light.

12.1.5 Bulk Tankers and Roll-off Transporters Entering the Site

Tankers and roll-off transporters will enter the site via the Huntingdon Avenue gate (see Figure 12.2). To obtain access through this locked gate, the driver will activate the bell in the etching department to contact manufacturing personnel. Upon entering the site, the driver of the tanker will be directed to the bulk loading/unloading area. The tanker will then be gauged and sampled in accordance with the procedure specified in the Waste Analysis Plan (See Section 5.0). Prior to actual loading/unloading, the storage capacity remaining in the storage tanks or volume in the storage tanks will be noted to prevent overfilling the tanks or tankers.

All tanker loading/unloading operations are performed in a totally enclosed building. Any spills in this area will be contained by virtue of the building's sloped concrete floor and discharged to the waste water treatment system via the floor sump. The roll-off transporter will be directed to the metal hydroxide/sulfide sludge storage area. Any spills of this dewatered sludge (no free liquids) will be placed back into the roll-off using brooms and shovels.

When the tanker roll-off is loaded or unloaded, the driver will pick-up his completed paperwork (manifest) from the traffic department. To connect with Route 8, the driver will exit the site as follows:

Route 8 South

- o Turn left when leaving the site, take first left onto Gear Street. At the end of Gear Street, take a right onto East Aurora Street, travel approximately 3/10 of a mile on East Aurora Street, and then turn left onto Route 73 South (Watertown Avenue); and
- o Turn right when leaving the site, travel approximately 3/10 of a mile on Huntingdon

Avenue and turn right onto the entrance ramp.

Route 8 North

- o Turn right when leaving the site, travel approximately 6/10 of a mile on Huntingdon Avenue and take right at the light and left after the Route 8 overpass onto the entrance ramp.

12.2 Location Information

12.2.1 Seismic Standard [40 CFR 264.18(a) and 270.13(b)(11)(i)]

In accordance with Section 264.18 (a), MacDermid, Inc.'s plant at 526 Huntingdon Avenue is an existing facility and, therefore, need not comply with the seismic standard. Furthermore, Appendix VI of Part 264 does not list Connecticut as a State in which a facility must meet the seismic standard. Consequently, no further information regarding demonstration of compliance with 264.18(a) is, therefore, required.

12.2.2 100 Year Flood Plain [40 CFR 264.18(b) and 270.14(b)(11)(iii)]

In accordance with Section 264.18(b) and Section 270.14(b)(11)(iii), facilities which are located in a 100 year flood plain must be designed, constructed, operated, and main-

tained to prevent washout of any hazardous waste by a 100-year flood.

To determine if this site is located in a 100-year floodplain, the Federal Insurance Map for the City of Waterbury, Connecticut was obtained and analyzed (see Figure 12.3). As shown on Figure 12.3, the MacDermid plant at 526 Huntingdon Avenue is located in an area of minimal flooding (zone C).

Therefore, no further information has been provided to demonstrate compliance with Sections 264.18(b) and 270.14(b)(11)(iii).

12.2.3 Salt Dome Formations, Salt Bed Formations, Underground Mines and Caves [40 CFR 264.18(c)]

Not applicable to MacDermid, Inc.

12.3 Topographic Map [270.14(b)(19)]

MacDermid, Inc. is located on two parcels of property north and south of Huntingdon Avenue. The southern parcel which is approximately 11 acres in area houses all manufacturing and laboratory facilities. The northern parcel which is approximately 42 acres in size is mostly undeveloped except for MacDermid's Corporate office located in the eastern portion.

In accordance with 40 CFR Section 270.14(b)(19), the topographic map provided as Figure 12.4 shows 1000 feet around the hazardous waste facilities located in the southern portion.



The following information is provided on the topographic map (Figure 12.4)

- (1) Surface waters;
- (2) Legal Boundaries of MacDermid, Inc.  
excluding the most northern portion of  
the north parcel.
- (3) 10 foot contours;
- (4) 200 foot scale;
- (5) Off-site injection and withdraw wells;
- (6) Orientation of the map (north arrow);and
- (7) Date.

In addition to this map, the following information as required under Section 270.14(b)(19) has been provided on the following maps:

- (1) 100-Year Flood Plan Area [Figure 12.3]
- (2) Wind Rose [Figure 12.5]
- (3) Buildings, storage and loading/unloading  
areas [Figure 2.1]
- (4) Access control (gates) [Figure 6.1]
- (5) Legal Boundaries [Figure 12.6]
- (6) Sanitary Sewer and Pretreatment System  
Drainage Systems [Figure 12.8]
- (7) Surrounding Land Uses [Figure 12.7]

#### 12.3.1. Map Features

##### (a) 100-Year Floodplain

MacDermid, Inc. is not within a 100-year floodplain.

(b) Surface Water

The Naugatuck River and Steel Brook are located east and south of MacDermid, Inc. respectively.

(c) Land Use

See Map (Figure 12.7)

(d) Wind Rose

As depicted on the chart, the winds are chiefly from the north-northwest at an average speed of less than 10 mph (See Figure 12.5).

(e) Legal Boundaries

See Map (Figure 12.6)

(f) Access Control

See Section 6.0 and Figure 6.1.

(g) Off-Site Injection/Withdrawal Wells

See Map (Figure 12.4)

(h) On-Site Water Supply Systems

See Map (Figure 12.8)

(i) Drainage/Sewerage

See Map (Figure 12.8)

(j) Operational Locations

See Map (Figure 2.1)

12.3.2 Ground Water Protection [40 CFR 270.14(b)(20)]

MacDermid, Inc. located at 526 Huntingdon Avenue in Waterbury, Connecticut, does not

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**Description of Oversized Material, if applicable:**

**FIGURE 12.4: TOPOGRAPHIC MAP**

☒ **Map**    ☐ **Photograph**    ☐ **Other (Specify Below)**

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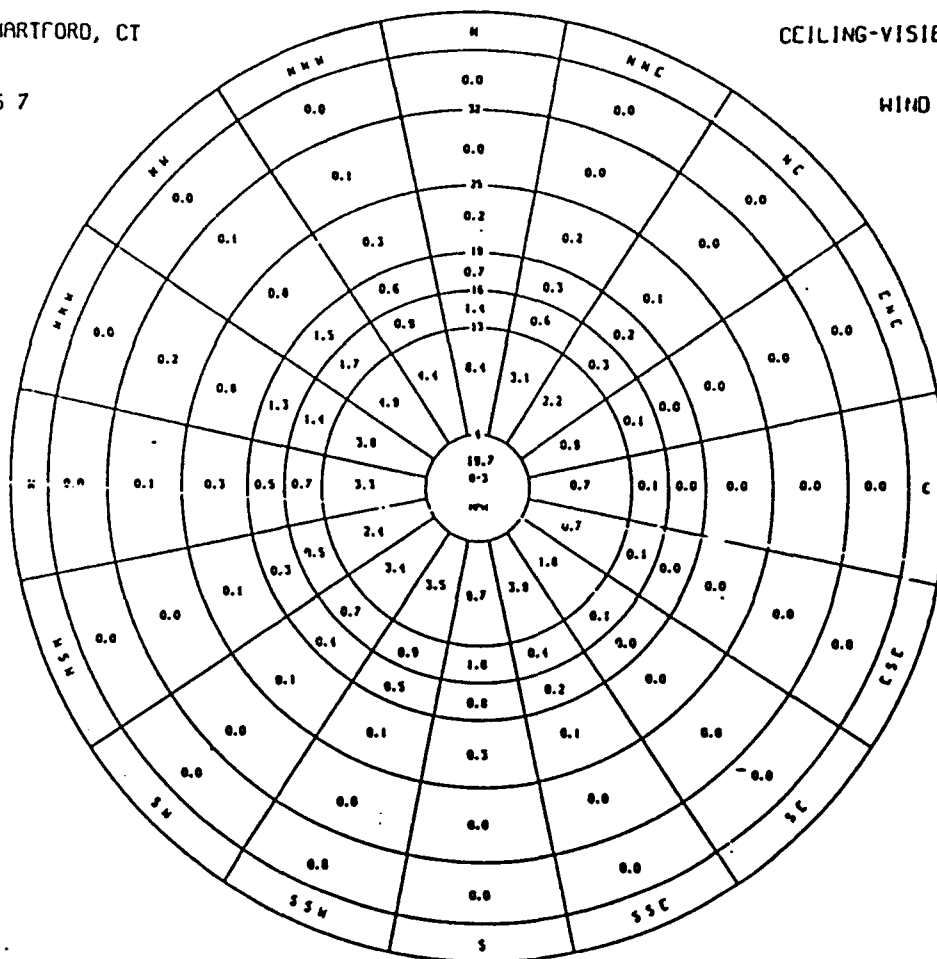


BOL HARTFORD, CT

CLASS 7

CEILING-VISIBILITY

WIND GRAPH



**FIG.12.5**  
**WIND ROSE**

**MACDERMID, INC.**  
**526 HUNTINGDON AVE.**  
**WATERBURY, CT.**

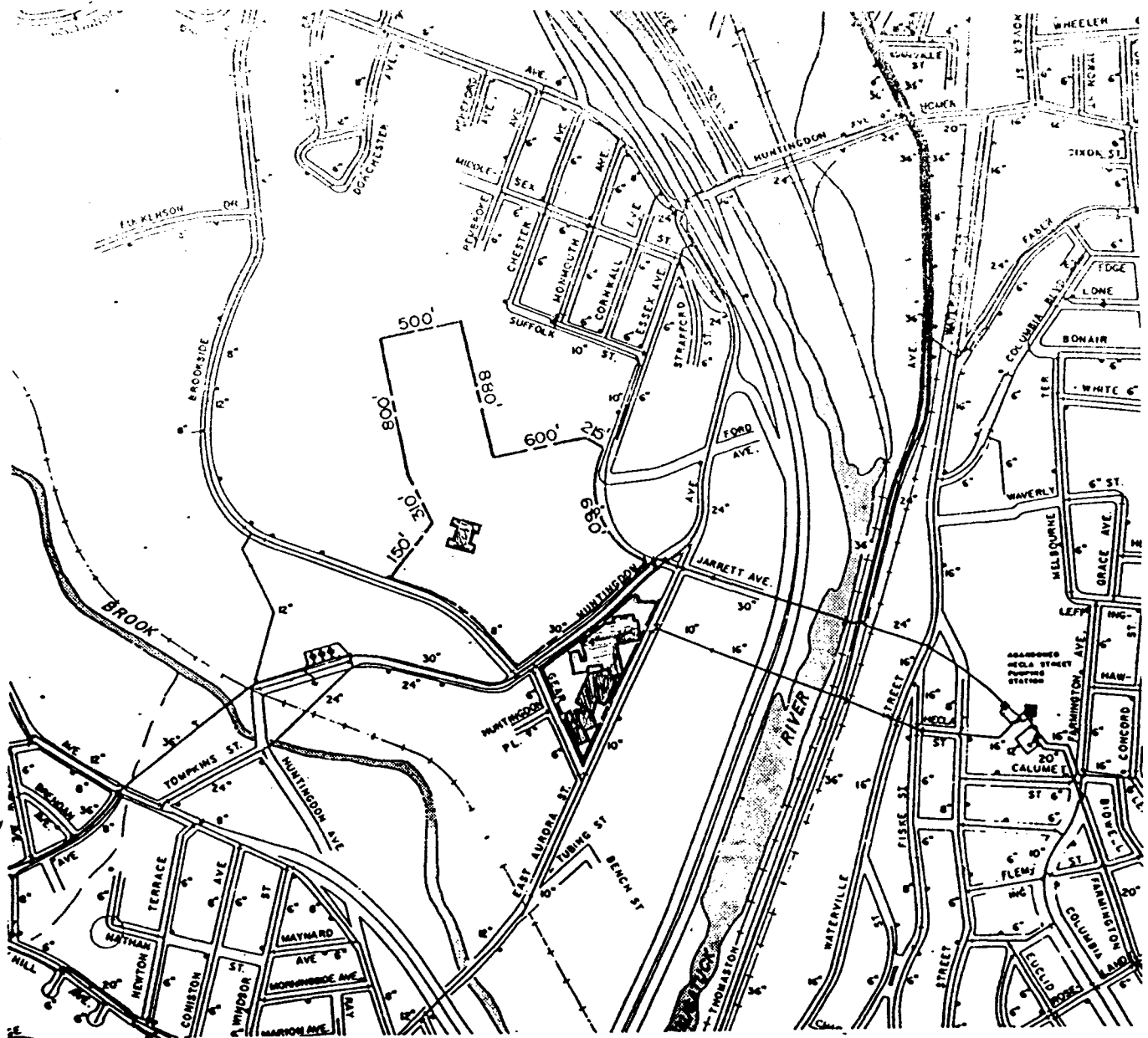


FIG. 12.6  
 FACILITY PROPERTY LINES  
 MACDERMID, INC.  
 526 HUNTINGDON AVE.  
 WATERBURY, CT.  
 NTS PB-MAN-Ø  
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**FIGURE 12.7: ZONING MAP**

\_\_\_\_\_

☒ **Map**      ☐ **Photograph**      ☐ **Other (Specify Below)**

\_\_\_\_\_  
\_\_\_\_\_

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treat, store or dispose of hazardous waste in surface impoundments, waste piles, land treatment units or landfills. Therefore, MacDermid, Inc. is not required to comply with the regulations under Section 270.14(b)(20).

#### 12.4 Container Storage Areas [40 CFR 270.15]

At MacDermid, Inc. four (4) separate areas are employed to store containerized wastes. The general location of the four storage areas: Main Container Storage Area; Flammable Material Storage; Micro Storage Area; and Metal Hydroxide Storage Area, are shown on Figure 2.1. Specific details of each storage area's dimensions and layout are provided on Figure 4.1 through 4.4.

In Section 9.0: container storage area secondary containment systems 264.175; condition of containers 264.171; precautions relating to ignitable wastes 264.176; aisle spacing, management of containers 264.173; and compatibility of wastes with containers 264.172 are described in detail.

Topics discussed in Sections 9.0 and 4.0 will not be repeated in this section. Additional discussion of run-on control and buffer zone requirements is provided below.

#### 12.4.1. Control of Run-On [40 CFR 270.15(a)(4)]

All container storage areas at MacDermid, Inc. are located inside the plant's buildings. Run-on is preventing from entering these areas via the building walls and roof.

#### 12.4.2 Buffer Zone Requirement [40 CFR 270.15(c)]

All flammable wastes generated at MacDermid, Inc. are stored in the Flammable Material Storage Area. This storage area as shown on Figure 2.1 is located 125 feet from the nearest property line.

### 12.5 Tank Design and Construction Information

[40 CFR Section 270.16(a)-(f)]

#### 12.5.1 Purpose

The information provided in this section is intended to address the issues raised by the U.S. EPA regulations (40 CFR 270.16) regarding tank design and construction. The specific regulations listed under 40 CFR 270.16 are as follows:

- (a) A written assessment that is reviewed and certified by an independent, qualified, registered professional engineer as to the structural integrity and suitability for handling hazardous waste of each tank system, as required under §§264.191 and 264.192;

- (b) Dimensions and capacity of each tank;
- (c) Description of feed systems, safety cut-off, bypass systems, and pressure controls (e.g., vents);
- (d) A diagram of piping, instrumentation, and process flow for each tank system;
- (e) A description of materials and equipment used to provide external corrosion protection, as required under Section 264.192(1)(3)(ii);
- (f) For new tank systems, a detailed description of how the tank system(s) will be installed in compliance with §264.192(b), (c), (d), and (e);
- (g) Detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of §264.193(a), (b), (c), (d), (e), and (f).
- (h) For tank systems for which a variance from the requirements of §264.193 is sought (as provided by §264.193(g)):
  - 1. Detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design

and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous waste or hazardous constituents into the ground water or surface water during the life of the facility, or

2. A detailed assessment of the substantial present or potential hazards posed to human health or the environment should a release enter the environment.

- (i) Description of controls and practices to prevent spills and overflows, as required under §264.194(b); and
- (j) For tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of §§264.198 and 264.199.

12.5.2 Written Assessment of Structural Integrity  
[40 CFR Sections 264.191, 264.192, and  
270.16(a)]

The four (4) above ground storage tanks employed at MacDermid, Inc. for the storage of spent copper etchant are housed in the northwestern section of the Huntingdon Avenue facility (see Figure 2.1). Secondary containment for these tanks is provided by an epoxy coated concrete floor, epoxy coated building walls and epoxy coated 2'7" high block wall located at both entrance ways. As discussed under Section 9.1.1 (4) and displayed on Figure 4.5, the total volume of secondary containment provided for these tanks is 11,953 gallons which is 149% of the largest tank in the area.

Therefore, since this existing tank storage area complies with the secondary containment and leak detection requirements defined under 40 CFR 264.193 (see Section 12.5.7), MacDermid, Inc. is exempted from the following regulatory requirements:

40 CFR 270.16(a) - Certification by an independent, qualified, registered professional engineer as to the structural integrity and suitability for handling hazardous waste of each tank system.



40 CFR 264.191 - Assessment of existing tank system's integrity by an independent, qualified registered professional engineer.

40 CFR 264.192 - Design and installation of new tank systems or components

12.5.3 Tank Dimensions [40 CFR 270.16(b)]

Tank dimensions and capacity are presented on Table 12.1.

12.5.4 Feed Systems/Safety Cutoff/Bypass Systems/Pressure Controls [40 CFR 270.16(c)]

The four (4) storage tanks employed by MacDermid, Inc. are used to temporarily store spent copper etchant prior to recycling. All transfer operations to and from these tanks are performed using air pressure. These pumps are manually operated. Pneumatic volume (bubble) gages located on the building wall and external sight gages are used to monitor tank volumes. No safety cutoff systems, bypass systems, or pressure controls are provided on these atmospheric storage tanks.

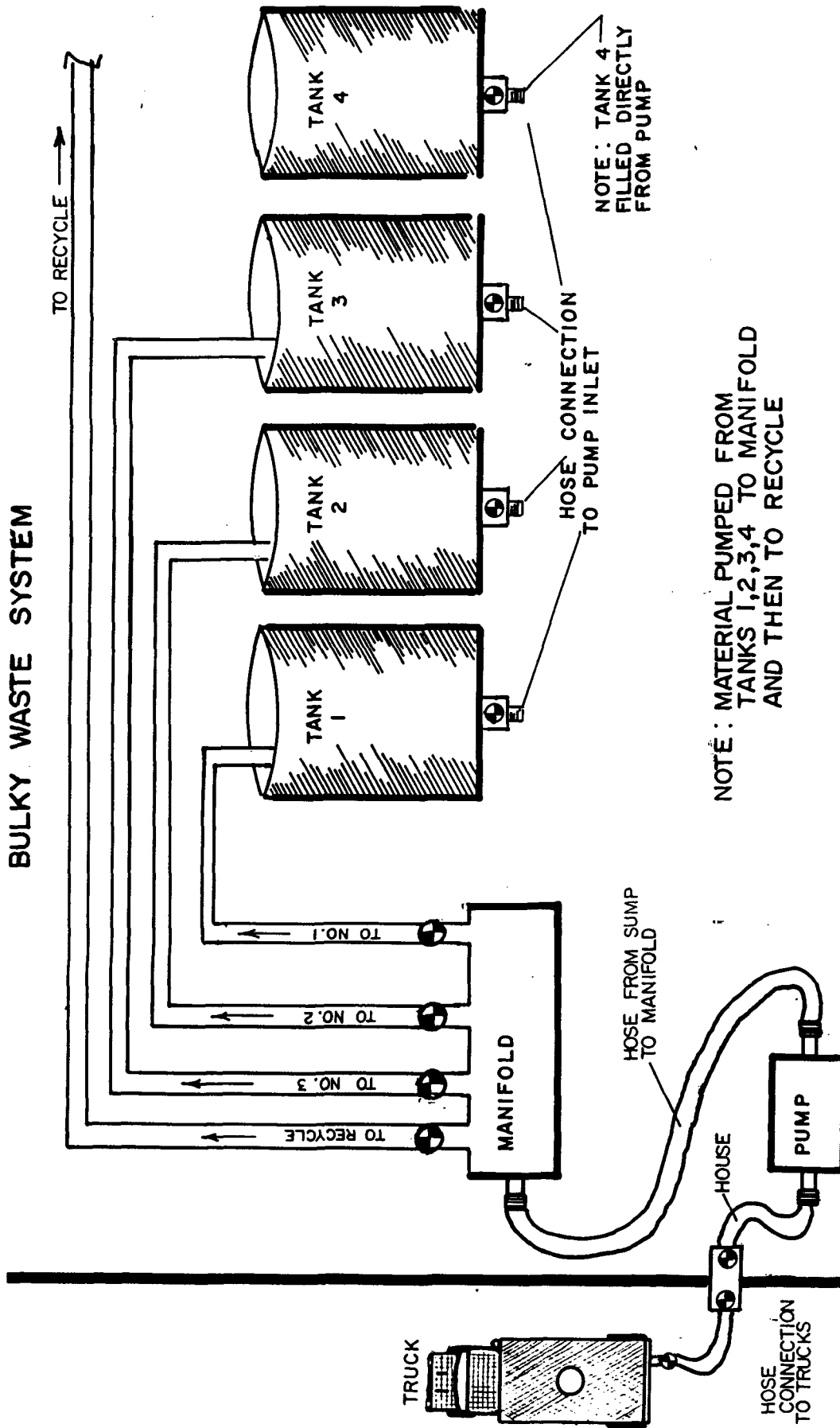
12.5.5 Process Diagrams [40 CFR 270.16(d)]

A process flow diagram for the four waste storage tanks is provided as Figure 12.9.

12.5.6 Corrosion Protection [40 CFR 270.16(e)]

The four waste storage tanks are constructed of fiberglass reinforced vinyl ester resin (Derakane 411 brand). Fiberglass reinforced

# BULKY WASTE SYSTEM



NOTE: MATERIAL PUMPED FROM TANKS 1,2,3,4 TO MANIFOLD AND THEN TO RECYCLE

NOTE: TANK 4 FILLED DIRECTLY FROM PUMP

FIGURE 12.9  
MACDERMID, INC.  
526 HUNTINGTON AVE.  
WATERBURY, CT.  
PB-MAN-0

vinyl ester is chemically resistant to the corrosion effects of the alkaline spent copper etchant.

The concrete floor, building walls and 2'7" high block walls of this storage area have also been coated with a suitable epoxy resin for corrosion protection.

12.5.7 Secondary Containment

[40 CFR 264.193(a)-(f) and 40 CFR 270.16(g)]

A detailed description of the secondary containment system for the four waste storage tanks is provided under Sections 2.1.5 and 9.1.1(4) of this application. A detailed plan of the storage area is provided as Figure 4.5.

12.5.8 Variance for Secondary Containment

[40 CFR 264.193(g) and 270.16(h)]

Not applicable to MacDermid, Inc.

12.5.9 Tank Controls to Prevent Overfilling

[40 CFR 264.194(b) and 270.16(i)]

The specific procedures followed by MacDermid, Inc. to prevent overfilling the waste storage tanks are provided under Section 2.3.2 and 9.1.2(2) of this application.

12.5.10 Ignitable/Reactive/Incompatible Wastes

[40 CFR 264.198, 264.199 and 270.16(j)]

The waste storage tanks at MacDermid, Inc. are used to store only spent copper etchant. Therefore, since the copper etchant is a non-flammable and non-reactive waste, MacDermid, Inc. is exempted from the regulatory requirements defined under 40 CFR 264.198, 264.199, and 270.16(j).

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**Description of Oversized Material, if applicable:**

**FIGURE 12.8: WATER/SANITARY/STORM SYSTEMS**

☒ **Map**      ☐ **Photograph**      ☐ **Other (Specify Below)**

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TABLE 12.1  
WASTE STORAGE TANKS DIMENSIONS

MACDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CT.

<u>Tank #</u>	<u>Tank Dimensions</u>	<u>Storage Capacity</u>
1	9'8" Diameter 14'6" High	8,000 gallons
2	9'8" Diameter 14'6" High	8,000 gallons
3	9'8" Diameter 14'6" High	8,000 gallons
4	10'0" Diameter 9'0" High	5,000 gallons

## 13.0 HAZARDOUS WASTE CLOSURE PLAN

### 13.1 Introduction

In accordance with RCRA regulations contained in 40 CFR Parts 264.111 through 264.115 (General Closure Requirements and Subparts I and J (Specific Facility Requirements), and analogous State regulations, all owners and operators of hazardous waste facilities must close their facilities in a manner that:

- Minimizes the need for further maintenance;
- Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure release of hazardous waste, hazardous constituents, leachate, contaminated run-off or hazardous waste decomposition products, to the ground water or surface water or to the atmosphere; and
- Complies with the closure requirements of 40 CFR Subpart G, including, but not limited to, the requirements of 40 CFR Sections 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.381, and 264.404.

The Closure Plan must include, at a minimum:

- A description of how and when the facility will be partially closed and ultimately closed;
- An estimate of the maximum inventory of wastes in storage or treatment at any given time;
- A description of the steps needed to decontaminate facility equipment, structures, etc., during closure;
- A description of any additional activities required during partial or final closure such as ground water monitoring, leachate collection, etc; and
- A schedule for final closure.

The procedures outlined in the following sections are to be followed for closure of the existing hazardous waste storage facilities (see Figure 2.1) of the MacDermid, Inc. facility located at 526 Huntingdon Avenue in Waterbury, Connecticut.

### 13.2 Closure Performance Standard

The closure performance standard set forth in this Plan requires that each storage area be decontaminated to a level where all possible hazardous constituents have been removed to health and environmental based standards for all exposure pathways. The three exposure pathways of concern are inhalation, dermal contact, and ingestion.

Presented on Table 13.1 are the hazardous constituents (Appendix VIII, 40 CFR Section 261.40) identified at MacDermid, Inc. The health-based standards for the different exposure pathways have been identified under Table 13.1, as follows:

Inhalation: Threshold Limiting Values (TLVs)

Dermal (indicated: Threshold Limiting Values (TLVs) by an asterisk "\*\*")

Ingestion: Maximum Contaminant Level (MCL);  
Verified Referenced Dose (RFD); and  
Risk-Specific Dose (RDS)



TABLE 13.1

CLOSURE PERFORMANCE STANDARD FOR  
EACH HAZARDOUS CONSTITUENTMACDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CT

Hazardous Constituent	TVL <sup>1</sup> (ppm)	MCL <sup>2**</sup> (mg/l)	RFD <sup>3</sup> (mg/l)	RSD <sup>4</sup> (mg/l)
Antimony	0.5 mg/m <sup>3</sup>	---	0.01	---
Barium	0.5 mg/m <sup>3</sup>	1.0	2	---
Cadmium	0.05 mg/m <sup>3</sup>	0.01	---	---
Chromium	0.5 mg/m <sup>3</sup>	0.05	0.2	---
Cyanide	5 mg/m <sup>3</sup>	---	0.7	---
Copper	1 mg/m <sup>3</sup>	1 <sup>5</sup>	---	---
Lead	0.05 mg/m <sup>3</sup>	0.05	---	---
Mercury	0.05 mg/m <sup>3</sup>	0.002	0.07	---
Nickel	1 mg/m <sup>3</sup>	---	0.5	---
Selenium	0.2 mg/m <sup>3</sup>	0.01	---	---
Silver	0.01 mg/m <sup>3</sup>	0.05	0.1	---
Zinc	10 mg/m <sup>3</sup>	5 <sup>5</sup>	---	---
Chlorobenzene	75	---	1	---
Trichlorofluoromethane	1000	---	---	---
Cresols*	5	---	---	---
O-dichlorobenzene	50	---	3	---
M-dichlorobenzene	---	---	---	---
2-ethoxyethanol*	5	---	---	---
Formaldehyde	3	---	---	---
Isobutyl Alcohol	100	---	---	---
Methylene Chloride	100	0.025 <sup>6</sup>	---	---
Methyl Ethyl Ketone	200	1 <sup>6</sup>	2	---
Methyl Isobutyl Ketone	50	---	2	---
Phenol*	5	---	1	---
Pyridine	5	---	0.04	---
Saccharin	---	---	---	---
Toluene	100	1 <sup>6</sup>	10	---
Xylene	100	70	---	---

1 Threshold Limiting Value, "NIOSH Pocket Guide to Chemical Hazards", U.S. Department of Health and Human Services, September, 1985.

2 EPA Maximum Contaminant Levels

3 EPA Verified Reference Doses

4 EPA Risk-Specified Doses

5 Secondary Drinking Water Standard

6 Connecticut Department of Health Services Action Levels (DOHSALs)

7 Constituent is considered a carcinogen by the ingestion route.

\* Dermal contact exposure pathway

\*\* MCL's have been finalized for only a few chemicals. For compounds without MCL's, recommended MCL's, DOHSALs, and National Secondary Drinking Water Standards have been used instead.

### 13.2.1 Closure Performance Determination

The following hierarchies will be used to determine when the waste storage area satisfies the closure performance standards listed under Table 13.1

For organic constituents, the analytical results will be compared to the MCL's, RFD's and RSD's in that order. The MCL will be used as the clean standard when available. If a compound does not have a MCL, the RFD will be used as the clean standard. For any known carcinogens, the RSD will be used as the clean standard. For organic constituents without a MCL, RFD or RSD, the minimum detection limit for the specific compound for the applicable analytical method will be used as the clean standard.

For metal constituents, a hierarchy which considers background levels must be utilized. Due to the inherent nature of concrete, natural levels of metals may be present. A representative background sample of the concrete will be taken and analyzed as described in Sections 13.3.4. The analytical results for metals will be compared to the MCL's and RFD's. In the event that the background level for

any metal is higher than the MCL and RFD, the background level will be used as the clean standard. If the background level is less than the MCL, the MCL will be used as the clean standard. If there is not an MCL and the background level is less than the RFD, the RFD will be used as the clean standard.

### 13.3 Closure Plan

The facilities employed at MacDermid's 526 Huntingdon Avenue plant for the storage of hazardous waste generated on-site and metal finishing, surface treatment, plating on plastics, electronics and micro electronic chemicals received for customers for recycling include the following:

- Main Container Storage Area;
- Flammable Material Storage Area;
- Micro Storage Area;
- Metal Hydroxide/Sulfide Sludge Storage Area;
- and
- Waste Storage Tanks.

The procedures to be followed by MacDermid, Inc. to close these facilities in a manner which will minimize the need for further maintenance and protect human health and the environment are provided in the following sections.

#### 13.3.1 Closure Plan for Container Storage Areas

EPA ID Number:	CTD 001164599
Owner/Operator:	MacDermid, Inc.
Plant Phone Number:	(203) 575-5700
Facility Address:	526 Huntingdon Avenue Waterbury, Connecticut

#### 13.3.1.1 Facility Operation

MacDermid, Inc. employs four (4) separate areas for the storage of containers at its Huntingdon Avenue facility. The maximum storage capacity of these areas and their intended use are as follows:

<u>Storage Area</u>	<u>Maximum Capacity</u>	<u>Intended Use</u>
Main Container Storage Area	76,000 gallons (1,261 55-gal. drums 20-330 gal. totes)	Spent metal finishing chemicals received from customers for recycling and miscellaneous liquids and semi-liquids generated on-site and designated for recycling or off-site disposal.
Flammable Material Storage Area	880 gallons (16 55-gal. drums)	Flammable liquids generated on-site and designated for off-site disposal.
Micro Storage Area	6,710 gallons (92 55-gal. drums & 5 330-gal. totes)	Spent metal finishing chemical generated on-site and received from customers for recycling.
Metal Hydroxide/Sulfide Sludge Storage Area	1 26-cubic yard roll-off	Dewatered metal hydroxide/sulfide sludge generated from the on-site industrial waste water treatment system.

Within these areas, all containers, except the 330 gallon storage totes and 26 cubic yard roll-off are stored on wooden pallets to prevent contact with any spilled/leaked waste. To provide access for inspection, all container rows are separated by a minimum of 2' and a maximum of 6'9" wide aisles.

#### 13.3.1.2 Waste Disposal

It has been assumed for the purpose of this plan, that all wastes will require off-site disposal and the storage areas are at their maximum storage capacity. All containerized waste will be disposed of off-site at a permitted hazardous waste facility.

#### 13.3.1.3 Closure Procedures

The procedures for closing each container storage area will incorporate the following steps:

##### Step 1:

Manifest and remove all stored, containerized waste.

##### Step 2:

Remove any loose dirt or dust using a dry vacuum. All dirt/dust collected in this operation will be placed

in a 55 gallon drum, and disposed of off-site at a permitted facility.

Step 3:

Remove any hazardous constituents which may have contaminated the concrete floor using a high pressure steam cleaner. An alkaline industrial cleaner which is phosphate free will be used with the steam cleaner.

Step 4:

Collect all cleaning water generated in Step 3 using a wet vacuum. All cleaning water will be collected in 55 gallon drums or a vacuum truck and disposed of off-site at a permitted facility.

Step 5:

Steam clean the floor after Step 4 using clean water only.

Step 6:

Collect a representative sample of the final rinse water as described under Section 13.3.3, and submit the sample to a certified laboratory for analysis. The analytical procedures to be followed by the laboratory are listed under Table 13.3.

Step 7:

The final rinse water will be collected in 55 gallon drums or a vacuum truck and disposed of off-site at a permitted facility.

Step 8:

Compare analytical results obtained under Step 6 with the closure performance standards listed under Table 13.1. The hierarchies to be followed are described under Section 13.2.1.

Step 9:

Based on Step 6 analytical results and the professional engineer's judgement, Step 3 through Step 7 will be repeated until the concentration of hazardous constituents in the final rinse are within acceptable ranges.

Step 10:

Collect a minimum of four concrete samples from each storage area using the sampling procedures described under Section 13.3.4. The sampling locations will be determined by dividing each storage area into 20 subsections and then using a random number generator (computer) to select each sampling point.

Step 11:

Submit the four (4) discrete samples to a certified laboratory for analysis. The specific analytical procedures to be followed are listed under Table 13.3.

Step 12:

Compare the analytical results under Step 11 to the closure performance standards listed under Table 13.1.

Step 13:

Repeat Steps 3 through 12 until the closure performance standards are achieved.

Step 14:

Collect all contaminated personal equipment and spill control equipment in 55 gallon drums and dispose of off-site at a permitted facility.

All waste generated during the closure of the container storage areas will be manifested and shipped off-site by a licensed waste hauler for treatment and/or disposal. Rinse or cleaning water generated in the decontamination process is estimated to be 1% of the areas maximum storage capacity.

All closure work will be supervised and performed using qualified off-site personnel. Off-site personnel will be equipped with solvent resistant coveralls, head protection, neoprene-coated gloves, and solvent resistant boots. Both the wrists and ankles will be taped to protect against upward and inward splash. Full face respirators with organic vapor filter cartridges that seal directly to the mask will be used in areas requiring these personnel safeguards. Chemical neutralization and spill control pillows will be employed in the event of any spills resulting from



the container storage area decontamination process. Strict supervision will include provisions for no open flames, hot surfaces or smoking to be present in and around the work areas.

#### 13.3.2 Closure Plan for Waste Storage Tanks

EPA ID Number:	CTD 001164599
Owner/Operator:	MacDermid, Inc.
Plant Phone Number:	(203) 575-5700
Facility Address:	526 Huntingdon Avenue Waterbury, Connecticut

##### 13.3.2.1 Facility Operation

MacDermid, Inc. employs four (4) above ground storage tanks for the storage of bulk recyclable wastes received from customers. All wastes stored in these areas are designated for recycling. The total storage capacity for these three (3) 8,000 gallon tanks and one (1) 5,000 gallon tank is 29,000 gallons.

These tanks are located on the west side of the Huntingdon Avenue plant.

#### 13.3.2.2 Waste Disposal

For the purpose of this plan, it has been assumed that all bulk waste will require off-site disposal and the storage tanks are at their maximum storage capacities. All bulk waste will be disposed of off-site at a permitted facility.

#### 13.3.2.3 Closure Procedures

The procedures for closing the bulk waste storage tanks and the storage area are as follows:

##### Step 1:

Remove the contents of the storage tanks and ship to a permitted facility. Manifests will be used with all off-site shipments.

##### Step 2:

Remove any loose dirt or dust in the storage area using a dry vacuum. All dirt/dust collected in this operation will be placed in a 55 gallon drum and disposed of off-site at a permitted facility.

##### Step 3:

Using a high pressure steam cleaner with an alkaline industrial cleaner (phosphate free) wash the inside of the tanks, the outside of the tanks, and the floor of the storage area.

##### Step 4:

Collect all cleaning water generated in Step 3 (55 gallon drums or vacuum truck) and ship to a permitted facility for final treatment/disposal.

Step 5:

Steam clean the tanks (inside and outside) and floor after Step 4 using clean water only.

Step 6:

Collect a representative sample of the final rinse water as described under Section 13.3.3 and submit the sample to a certified laboratory for analysis. The analytical procedures to be followed by the laboratory are listed under Table 13.3

Step 7:

The final rinse water will be collected in 55 gallon drums or a vacuum truck and disposed of off-site at a permitted facility, for final treatment/disposal.

Step 8:

Compare the analytical results obtained under Step 6 with the closure performance standards listed under Table 13.1. The hierarchies to be followed are described under Section 13.2.1.

Step 9:

Based on Step 6's analytical results and the professional engineer's judgement, Steps 3 through 7 will be repeated until the concentration of hazardous constituents in the final rinse are within acceptable ranges.

Step 10:

Collect four concrete sample from the storage areas' floor using the sampling procedures described under Section 13.3.4. The sampling locations will be determined by dividing the storage area into 20 subsections and then using a random number generator (computer) to select each sampling point.

Step 11:

Submit the four (4) discrete samples to a certified laboratory for analysis. The specific analytical procedures to be followed by the laboratory are listed under Table 13.4.

Step 12:

Compare the analytical results under Step 11 to the closure performance standards listed under Table 13.1.

Step 13:

Repeat Steps 3 through 12 until the closure performance standards are achieved.

Step 14:

Collect all contaminated personal equipment and spill control equipment in 55 gallon drums and dispose of off-site at a permitted facility.

All waste generated during the closure of the bulk waste storage tanks will be manifested and shipped off-site by a licensed waste hauler for treatment and/or disposal. Rinse or cleaning water generated in the decontamination process is estimated at 5% of the tanks maximum storage capacity.

All closure work will be supervised and performed using qualified off-site personnel. Off-site personnel will be equipped with solvent

resistant coveralls, head protection, neoprene-coated gloves, and solvent resistant boots. Both the wrists and ankles will be taped to protect against upward and inward splash. Full face respirators with organic vapor filter cartridges that seal directly to the mask will be used in areas requiring these personnel safeguards. Chemical neutralization and spill control pillows will be employed in the event of any spills resulting from the container storage area decontamination process. Strict supervision will include provisions for no open flames, hot surfaces or smoking to be present in and around the work areas.

13.3.3 Sampling and Testing Procedures for Final Rinse Water

The final rinse waters generated from the closure of each storage area will be sampled in the following manner:

1. Using a clean plastic scoop, a final rinse water sample will be scooped off the base of the waste storage area.
2. Samples will be placed into the appropriate container and preserved as shown on Table 13.2.

TABLE 13.2

SAMPLE COLLECTION/PRESERVATION REQUIREMENTS<sup>1</sup>

MACDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CT

<u>Parameter</u>	<u>Container</u>	<u>Preservation</u>	<u>Maximum Holding Time</u>
Volatile Organics	glass w/teflon lined cap	Cool to 4°C	40 days after extraction
Metals	plastic or glass w/screw type lids	HNO <sup>3</sup> to pH<2	6 months

<sup>1</sup> Test Methods for the Evaluation of Solid Wastes  
Physical/Chemical Methods, EPA, SW-846, 3rd edition, November, 1986.

3. Samples will be submitted to a certified laboratory for analyses accompanied by a signed Chain of Custody (see Appendix D).

The testing procedure to be followed by the certified laboratory when analyzing the final rinse water samples are shown on Table 13.3.

#### 13.3.4 Sampling and Testing Procedures for Concrete

Each storage area has a concrete base. Due to the porous nature of concrete, samples of the concrete will be collected and analyzed to determine if the closure performance standards have been met.

A background sample of concrete will be collected from the general vicinity of each storage area due to the inherent nature of concrete to contain low levels of metals.

The concrete base of each waste storage area will be sampled in the following manner:

1. The samples will be collected by one of the following methods: drilled core sample 0-1", powered jack hammer, or hand chisel.
2. To prevent cross contamination between sampling points, sampling equipment will be decontaminated after each sample by the following:
  - wash with a suitable laboratory soap (Alconox);
  - rinse with tap water;
  - rinse with 1:4 solution of nitric acid/distilled water;
  - rinse with distilled water;
  - hexane rinse; and
  - air dry.

TABLE 13.3

## METHODS OF ANALYSIS FOR FINAL RINSE WATER

MACDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CT

<u>Parameter</u>	<u>Test Method</u>	<u>Recommended<sup>1</sup> Analytical Method</u>
Antimony	Atomic Absorption	7040, 7041 <sup>1</sup>
Barium	Atomic Absorption	7080, 7081 <sup>1</sup>
Cadmium	Atomic Absorption	7130, 7131 <sup>1</sup>
Chromium	Atomic Absorption	7190, 7191 <sup>1</sup>
Copper	Atomic Absorption	7210 <sup>1</sup>
Cyanide	Colormetric	9010, 9012 <sup>1</sup>
Lead	Atomic Absorption	7420, 7421 <sup>1</sup>
Mercury	Atomic Absorption	7470, 7471 <sup>1</sup>
Nickel	Atomic Absorption	7520 <sup>1</sup>
Selenium	Atomic Absorption	7740, 7741 <sup>1</sup>
Silver	Atomic Absorption	7760, 7761 <sup>1</sup>
Zinc	Atomic Absorption	7950 <sup>1</sup>
Chlorobenzene	Gas Chromatography/ Mass Spectrometry	8020/8240 <sup>1</sup>
Trichlorofluoromethane	Gas Chromatography/ Mass Spectrometry	8010, 8240 <sup>1</sup>
Cresols	Gas Chromatography/ Mass Spectrometry	8270 <sup>1</sup>
O-Dichlorobenzene	Gas Chromatography/ Mass Spectrometry	8020, 8240 <sup>1</sup>
M-Dichlorobenzene	Gas Chromatography/ Mass Spectrometry	8020, 8240 <sup>1</sup>
2-Ethoxyethanol	Gas Chromatography/ Mass Spectrometry	8030, 8240 <sup>1</sup>
Formaldehyde	Gas Chromatography/ Mass Spectrometry	8015, 8240 <sup>1</sup>
Isobutyl Alcohol	Gas Chromatography/ Mass Spectrometry	N.S.
Methylene Chloride	Gas Chromatography/ Mass Spectrometry	8010, 8240 <sup>1</sup>
Methyl Ethyl Ketone	Gas Chromatography/ Mass Spectrometry	8015, 8240 <sup>1</sup>
Methyl Isobutyl Ketone	Gas Chromatography/ Mass Spectrometry	8015, 8240 <sup>1</sup>
Phenol	Gas Chromatography/ Mass Spectrometry	8040, 8250, 8270 <sup>1</sup>
Pyridine	Gas Chromatography/ Mass Spectrometry	8240, 8270 <sup>1</sup>
Saccharin	N.S.	N.S.
Toluene	Gas Chromatography/ Mass Spectrometry	8020, 8240 <sup>1</sup>



TABLE 13.3 (continued)

<u>Parameter</u>	<u>Test Method</u>	<u>Recommended<sup>1</sup> Analytical Method</u>
Xylene	Gas Chromatography/ Mass Spectrometry	8020, 8240 <sup>1</sup>

1 Test Methods for the Evaluation of Solid Waste  
Physical/Chemical Methods, EPA, SW-846, 3rd. Edition,  
November, 1986.

N.S. - Non-Specified in 1.

3. Samples will be placed into glass containers with a teflon seal and stored on ice.
4. Samples will be submitted to a certified laboratory for analyses accompanied by a signed Chain of Custody (see Appendix D).

The testing procedures to be followed by the certified laboratory when analyzing the concrete samples are shown on Table 13.4.

#### 13.3.5 Sampling and Testing of Ambient Air

To protect the health of clean-up personnel, air monitoring will be conducted. Air monitoring for gross organic vapors will be conducted utilizing an H-Nu Organic Vapor Analyzer.

The H-Nu Organic Vapor Analyzer yields direct measurements, therefore, no laboratory analyses are required.

#### 13.4 Partial Closure

Partial closure is not expected nor projected for this facility. In the event that the facility determines that it is necessary to close a part of this facility, the closure plan will be amended to indicate the closure schedule for partial closure. In such circumstances, the amended closure plan will be submitted to the EPA Regional Administrator 180 days before partial closure is expected to begin.

Partial closure of any portion of the facility will be carried out according to the procedures detailed in Section 13.3.

TABLE 13.4

## METHODS OF ANALYSIS FOR CONCRETE

MACDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CT

<u>Parameter</u>	<u>Test Method</u>	<u>Recommended<sup>1</sup> Pretreatment Method</u>	<u>Recommended<sup>1</sup> Analytical Method</u>
Antimony	Atomic Absorption	1310 <sup>1</sup>	7040, 7041 <sup>1</sup>
Barium	Atomic Absorption	1310 <sup>1</sup>	7080, 7081 <sup>1</sup>
Cadmium	Atomic Absorption	1310 <sup>1</sup>	7130, 7131 <sup>1</sup>
Chromium	Atomic Absorption	1310 <sup>1</sup>	7190, 7191 <sup>1</sup>
Copper	Atomic Absorption	1310 <sup>1</sup>	7210 <sup>1</sup>
Cyanide	Colormetric	—	9010, 9012 <sup>1</sup>
Lead	Atomic Absorption	1310 <sup>1</sup>	7420, 7421 <sup>1</sup>
Mercury	Atomic Absorption	1310 <sup>1</sup>	7470, 7471 <sup>1</sup>
Nickel	Atomic Absorption	1310 <sup>1</sup>	7520 <sup>1</sup>
Selenium	Atomic Absorption	1310 <sup>1</sup>	7740 <sup>1</sup> , 7741 <sup>1</sup>
Silver	Atomic Absorption	1310 <sup>1</sup>	7760, 7761 <sup>1</sup>
Zinc	Atomic Absorption	1310 <sup>1</sup>	7950 <sup>1</sup>
Chlorobenzene	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8020, 8240 <sup>1</sup>
Trichlorofluoromethane	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8010, 8240 <sup>1</sup>
Cresols	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8040, 8250, 8270 <sup>1</sup>
O-Dichlorobenzene	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8020, 8240 <sup>1</sup>
M-Dichlorobenzene	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8020, 8240 <sup>1</sup>
2-Ethoxyethanol	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8030, 8240 <sup>1</sup>
Formaldehyde	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8015, 8240 <sup>1</sup>
Isobutyl Alcohol	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	N.S.
Methylene Chloride	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	N.S.
Methyl Ethyl Ketone	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8015, 8240 <sup>1</sup>
Methyl Isobutyl Ketone	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8015, 8240 <sup>1</sup>
Phenol	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8040, 8250, 8270 <sup>1</sup>
Pyridine	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8240, 8270 <sup>1</sup>
Saccharin	N.S.	1311 <sup>2</sup>	N.S.

TABLE 13.4 (continued)

<u>Parameter</u>	<u>Test Method</u>	<u>Recommended<sup>1</sup> Pretreatment Method</u>	<u>Recommended<sup>1</sup> Analytical Method</u>
Toluene	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8020, 8240 <sup>1</sup>
Xylene	Gas Chromatography/ Mass Spectrometry	1311 <sup>2</sup>	8020, 8240 <sup>1</sup>

1 Test Methods for the Evaluation of Solid Waste Physical/Chemical Methods, Epa, SW-846, 3rd. Edition, November, 1986.

2 Toxicity Characteristic Leaching Procedure

N.S. - Non-Specified in 1.

### 13.5 Amendment of Closure Plan

In accordance with 40 CFR 264.112(c) and CT-22a-449(c)-29(2), MacDermid, Inc. will submit a written request for a permit modification including a copy of the amended closure plan for approval at least sixty (60) days prior to the proposed change in the 526 Huntingdon Avenue facility design or no later than sixty (60) days after an unexpected event which affected the closure plan. If the unexpected event occurs during partial or final closure of the 526 Huntingdon Avenue facility, a permit modification will be submitted no later than thirty (30) days after the unexpected event.

In addition, a modified closure plan will be submitted to the Connecticut DEP within sixty (60) days of the DEP's request or within thirty (30) days during partial or final closure if conditions at the 526 Huntingdon Avenue facility change.

### 13.6 Closure Schedule

Outlined under Tables 13.5 and 13.6 are the closure schedules to be followed for the container storage areas and waste storage tanks respectively.

TABLE 13.5

CLOSURE SCHEDULE FOR CONTAINER STORAGE AREAS

MACDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CT

<u>Closure Activity</u>	<u>Completion Date</u>
Notify the EPA and CT-DEP of expected closure	Day 1
Final date for accepting wastes	Day 180
Removal of contaminated wastes	Day 270
Decontamination of Storage Areas	Day 300
Disposal of rinse water, contaminated clean-up material and contaminated personal protective equipment	Day 330
Certification of closure by a Professional Engineer	Day 360

TABLE 13.6

CLOSURE SCHEDULE FOR WASTE STORAGE TANKS

MACDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CT

<u>Closure Activity</u>	<u>Completion Date</u>
Notify the EPA and CT-DEP of expected closure	Day 1
Final date for accepting wastes	Day 180
Removal of contaminated wastes	Day 270
Decontamination of Storage Areas	Day 300
Disposal of rinse water, contaminated clean-up material and contaminated personal protective equipment	Day 330
Certification of closure by a Professional Engineer	Day 360

### 13.7 Closure Cost Estimates

The estimated closure costs for MacDermid, Inc.'s storage facilities are shown on Tables 13.7 and 13.8. These costs are based on the following third party costs for closing the 526 Huntingdon Avenue facility:

1. Operator @ \$40/hour
2. Supervisor @ \$50/hour
3. Disposal of wastes at the following rates:
  - Contaminated clean-up and personal protective equipment \$250/drum
  - Decontamination rinse water \$150/drum  
\$.50/gal. (bulk)
4. Waste transportation @ \$300/trip
5. Equipment
  - Basic safety equipment (per person) \$ 75/day
  - Tools \$ 25/day
  - Air Monitoring Equipment \$100/day
  - Pressure Washer \$150/day
6. Professional Engineer @ \$95/hour
7. Laboratory Analysis
  - Rinse water sample \$750
  - Concrete sample \$750
8. Waste Materials
  - 55 gallon drums \$150/drum
  - Bulk Waste \$2.00/gallon
  - Metal Hydroxide/Sulfide Sludge \$250/cu. yard
  - Storage Tote (330 gallons) \$750/tote



TABLE 13.7

CLOSURE COSTS - CONTAINER STORAGE AREA

<b>A. Disposal of drummed wastes and roll-off</b>	
o 1362 drums x \$150/drum (main container storage area)	\$204,300
o 20 totes x \$750/tote (main container storage area)	\$ 15,000
o 16 drums x \$150/drum (flammable materials storage area)	\$ 2,400
o 92 drums x \$150/drum (micro storage area)	\$ 13,800
o 5 totes x \$750/tote (micro storage area)	\$ 3,750
o 1 roll-off x 26 cubic yards/roll-off x \$250/cubic yard	\$ 6,500
<b>B. Transportation of drummed wastes and roll-off</b>	
o 1470 drums x trip/80 drums x \$300/trip	\$ 5,500
o 1 roll-off x trip/roll-off x \$1500/trip	\$ 1,500
<b>C. Labor to handle drummed wastes and roll-off</b>	
o 1470 drums ÷ 80 drums/hr x \$40/hr.	\$ 735
o 1 roll-off x 1 hr/roll-off x \$40/hr.	\$ 40
o 7 hours supervision x \$50/hr.	\$ 350
<b>D. Decontamination of Storage Areas</b>	
o 2000 gallons of rinse water @ \$.50/gal	\$ 1,000
o Transportation	\$ 300
o Operators (2) time @ 80 hrs./each x \$40/hr.	\$ 6,400
o Supervisor time @ 16 hrs. x \$50/hr.	\$ 800
o Pressure washer rental @ 5 days x \$150/day	\$ 750
o Safety equipment & tools @ \$200/day x 15 days x 2 operators	\$ 6,000
o Laboratory Analysis of rinse water @ 4 samples x \$750/sample	\$ 3,000
o Laboratory Analysis of concrete @ 16 samples x \$750/sample	\$ 12,000
<b>E. Disposal of Personal Protective Equipment</b>	
o Disposal of 1 drum x \$750/drum	\$ 750
o Transportation	\$ 300
<b>F. Professional Engineer Certification of Closure</b>	
o 8 hours x \$95/hr.	\$ 760
<b>TOTAL</b>	
	\$285,935
<b><u>SAY</u></b>	
	<u>\$286,000</u>

hrp associates inc.

TABLE 13.8

CLOSURE COSTS - WASTE STORAGE TANKS

A.	Disposal of bulk waste	
o	29,000 gallons x \$2.00/gallon	\$ 58,000
B.	Transportation	
o	29,000 gals. x trip/5,000gals. x \$300/trip	\$ 1,740
C.	Labor to handle bulk waste	
o	4 hours operators time x \$40/hour	\$ 160
o	2 hours supervisors time x \$50/hour	\$ 100
D.	Decontamination of Storage Area & Tanks	
o	1450 gallons of rinse water @ \$0.50/gallon	\$ 725
o	Transportation	\$ 300
o	Operators (2) time @ 20 hours/each x \$40/hour	\$ 1,600
o	Supervisor time @ 4 hours x \$50/hour	\$ 200
o	Pressure washer rental @ 2 days x \$150/day	\$ 300
o	Safety equipment & tools @ \$200/day x 2 operators x 2 days	\$ 800
o	Laboratory analysis	
	1 water sample x \$750/sample	\$ 750
	4 concrete samples x \$750/sample	\$ 3,000
E.	Disposal of personal protective equipment	
o	Disposal of 1 drum x \$750/drum	\$ 750
o	Transportation	\$ 300
F.	Professional Engineer - Certification of Closure	
o	2 hours x \$95/hour	\$ 190
	TOTAL	\$ 68,915
	<u>SAY</u>	<u>\$ 68,950</u>

13.8 Certification of Closure

Certification at the completion of closure by a Licensed Professional Engineer is required. The following certification will be submitted to the EPA Region I Administrator upon completion of closure.

"I, \_\_\_\_\_, for \_\_\_\_\_ or  
\_\_\_\_\_, a hazardous waste TSDF, and  
I, \_\_\_\_\_, P.E., employed by \_\_\_\_\_  
\_\_\_\_\_ certify by means of signatures,  
that the facility named above has been closed in  
accordance with the method specified by the Closure  
Plan and attached hereto. Closure was completed on  
\_\_\_\_\_, after receiving the final  
volume of material on \_\_\_\_\_.

_____	_____ P.E.
Company Name	Engineer
_____	_____
Date	Date

#### 14.0 FINANCIAL REQUIREMENTS

[40 CFR 264 Subpart H, 270.14(b)(16), (b)(17) and (b)(18)]

##### 14.1 Financial Assurance for Closure

[40 CFR 264.143(f)]

MacDermid, Inc. has and will continue to provide financial assurance for closure of the 526 Huntingdon Avenue facility by the financial test.

Provided in Appendix E is a copy of the letter signed by the Treasurer and worded as specified in 40 CFR Section 264.151(f). A copy of the independent certified public accountant's report on the examination of MacDermid's latest financial statements and a special report from MacDermid's certified public accountant as required under 40 CFR 264.143(f)(3)(i) and (f)(3)(iu) are also provided under Appendix E.

##### 14.2 Cost Estimate for Post-Closure Care [40 CFR 264.144]

Not applicable to MacDermid, Inc.

##### 14.3 Financial Assurance for Post-Closure Care

[40 DFR 264.145]

Not applicable to MacDermid, Inc.

##### 14.4 Use of a Mechanism for Financial Assurance of Both Closure and Post-Closure Care [40 CFR 264.146]

MacDermid, Inc. has provided financial assurance of closure for the 526 Huntingdon Avenue by the finan-

cial test (see Section 14.1). The requirements of post-closure care are not applicable to MacDermid, Inc.

14.5 Liability Requirements [40 CFR 264.174]

14.5.1 Coverage for Sudden Accidental Occurrences  
[40 CFR 264.147(a)]

MacDermid, Inc. has met the requirements of this section by means of obtaining liability coverage for sudden and non-sudden accidental occurrences in the amount of \$3,000,000 per occurrence and \$6,000,000 annual aggregate from the National Union Fire Insurance Company (see Appendix F).

14.5.2 Coverage for Non-Sudden Accidental Occurrences  
[40 CFR 264.147(b)]

Not applicable to MacDermid, Inc.

14.5.3 Request for Variance [40 CFR 264.147(c)]

Not applicable to MacDermid, Inc.

14.5.4 Adjustments by the Regional Administrator  
[40 CFR 264.147(d)]

MacDermid, Inc. will provide, within a reasonable time, any information requested by EPA and DEP to determine whether cause exists for an adjustment in the level or type of coverage for the 526 Huntingdon Avenue facility in Waterbury, Connecticut.

14.5.5 Period of Coverage [40 CFR 264.147(e)]

In accordance with this Section, the EPA and DEP must notify MacDermid, Inc. within sixty (60) days after receiving final closure certifications from MacDermid, Inc. and an independent registered professional engineer that liability coverage is no longer required for the 526 Huntingdon Avenue facility.

14.5.6 Financial Test for Liability Coverage

[40 CFR 264.147(f)]

Not applicable to MacDermid, Inc.

14.5.7 Hazardous Waste Facility Liability  
Endorsement or certificate of liability  
Insurance[40 CFR 264.147(g)]

Not applicable to MacDermid, Inc.

14.6 Incapacity of Owners or Operators, Guarantors, or  
Financial Institutions [40 CFR 264.148]

In accordance with 40 CFR Section 264.148, MacDermid, Inc. will establish, in the event of bankruptcy, other financial assurance or liability coverage within sixty (60) days after such an event.

14.7 Use of State-Required Mechanisms [40 CFR 264.149]

Not applicable to MacDermid, Inc.

14.8 State Assumption of Responsibility [40 CFR 264.150]

Not applicable to MacDermid, Inc.

14.9 Wording of the Instruments

[40 CFR 264.151]

The wording of the instruments used by MacDermid, Inc. for closure care and liability coverage meet the criteria specified in 40 CFR 264.151(f) and 264.151(i), respectively (see Appendices E and F).

14.10 Part B - Post-Closure Cost Estimate

[40 CFR 270.14(b)(16)]

Not applicable to MacDermid, Inc.

14.11 Part B - Insurance Policy

[40 CFR 270.14(b)(17)]

A copy of MacDermid's insurance policy documentation is provided in Appendices E and F.

14.12 Part B - State Financial Mechanism

[40 CFR 270.14(b)(18)]

Not applicable to MacDermid, Inc.

15.0 OTHER FEDERAL LAWS

[40 CFR Section 270.14(b)(20)]

MacDermid, Inc.'s 526 Huntingdon Avenue facility in Waterbury, Connecticut is believed to be in compliance with the following Federal laws: Clean Water Act; Clean Air Act; Toxic Substance Control Act; Occupational Safety and Health Act; Fungicides, Insecticide, Rodenticide Act; Wild and Scenic Rivers Act; National Historic Preservation Act of 1966; Endangered Species Act; Coastal Zone Management Act; Fish and Wildlife Coordination Act.

MacDermid, Inc. will provide information as necessary for the Regional Administrator to carry out his duties under other Federal laws.



16.0 APPLICATION CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment.

Date: 11/8/88 Signature: Carol L. L...

APPENDIX A

March 19, 1985 Part A Application

U.S. ENVIRONMENTAL PROTECTION AGENCY		GENERAL INFORMATION		I. EPA I.D. NUMBER	
		<b>Consolidated Permit Program</b> <small>(Read the "General Instructions" before starting.)</small>		<b>CTD001164599</b>	
<b>PLEASE PLACE LABEL IN THIS SPACE</b>		<b>GENERAL INSTRUCTIONS:</b> If a preprinted label has been provided, fill in the designated space. Review the information carefully. If any of it is incorrect, correct it and enter the correct data in appropriate fill-in area below. Also, if any the preprinted data is absent (the area to left of the label space lists the information that should appear), please provide it in proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.			
<b>II. POLLUTANT CHARACTERISTICS</b>					
<b>INSTRUCTIONS:</b> Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.					
<b>SPECIFIC QUESTIONS</b>		<b>MARK "X" IF SUPPLEMENTAL FORM ATTACHED</b>		<b>SPECIFIC QUESTIONS</b>	
<b>A.</b> Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		YES NO ATTACHED 16 17 18 X		<b>B.</b> Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)	
<b>C.</b> Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		YES NO ATTACHED 19 20 21 X		<b>D.</b> Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)	
<b>E.</b> Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)		YES NO ATTACHED 22 23 24 XX		<b>F.</b> Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	
<b>G.</b> Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, or fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		YES NO ATTACHED 25 26 27 X		<b>H.</b> Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	
<b>I.</b> Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		YES NO ATTACHED 28 29 30 X		<b>J.</b> Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	
YES NO ATTACHED 31 32 33		YES NO ATTACHED 34 35 36		YES NO ATTACHED 37 38 39	
<b>III. NAME OF FACILITY</b>					
<b>1</b> SKIP MACDERMID INCORPORATED					
<b>IV. FACILITY CONTACT</b>					
<b>A. NAME &amp; TITLE (last, first, &amp; title)</b>				<b>B. PHONE (area code &amp; no.)</b>	
<b>2</b> KOEHLER, FORBES R CORP IND ENGR				203 575 5700	
<b>V. FACILITY MAILING ADDRESS</b>					
<b>A. STREET OR P.O. BOX</b>					
<b>3</b> 26 HUNTINGDON AVENUE					
<b>B. CITY OR TOWN</b>					
<b>4</b> WATERBURY					
<b>C. STATE</b>					
CT					
<b>D. ZIP CODE</b>					
06708					
<b>VI. FACILITY LOCATION</b>					
<b>A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER</b>					
<b>5</b> 526 HUNTINGDON AVENUE					
<b>B. COUNTY NAME</b>					
NEW HAVEN					
<b>C. CITY OR TOWN</b>					
<b>6</b> WATERBURY					
<b>D. STATE</b>					
CT					
<b>E. ZIP CODE</b>					
06708					

1. (specify) 2, 8, 9, 9 CHEMICAL PREPARATIONS		2. (specify)	
3. (specify)		4. (specify)	

**VIII. OPERATOR INFORMATION**

5. NAME MACDERMID INCORPORATED		6. Is the name listed in Item VII(C) above? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
-----------------------------------	--	--	--

7. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other" specify.) F - FEDERAL, S - STATE, P - PRIVATE, M - PUBLIC (other than federal or state), O - OTHER (specify) P		8. PHONE (area code & no.) A 203 575 570	
--	--	---	--

9. STREET OR P.O. BOX 526 HUNTINGDON AVENUE	
--	--

10. CITY OR TOWN B WATERBURY	11. STATE CT	12. ZIP CODE 06708	13. INDIAN LAND Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
---------------------------------	-----------------	-----------------------	--

**IX. EXISTING ENVIRONMENTAL PERMITS**

14. PERMITS (Discharges to Surface Water) 9 N CT 0024988		15. PSD (Air Emissions from Proposed Sources) 9 P	
16. UIC (Underground Injection of Fluids) 9 U		17. OTHER (specify) DEP/HWM 028 (specify) Ct Interim Storage Permit	
18. RCRA (Hazardous Wastes) 9 R		19. OTHER (specify) CTHW-330 (specify) Ct Waste Hauler Permit	

**XI. MAP**

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

**XII. NATURE OF BUSINESS (provide a brief description)**

The principle business of MacDermid, Inc. is the blending or compounding of chemical materials used for processing by the metal finishing, plating on plastics and printed circuit industries. As an adjunct to the principle business, the company provides the facilities and capability for beneficially recovering for recycling certain materials such as copper, ammonia, chromium, tin-lead and nickel compounds which are by-products of the manufacturing processes of customers of the company. Through such processes, they are temporarily stored on-site. Ultimately, all recycled material is removed from the site through off-site reclamation or on-site reclamation.

**XIII. CERTIFICATION (see instructions)**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print) Reginald H. Post, VP Manufacturing	B. SIGNATURE 	C. DATE SIGNED 3-19-85
--	--	---------------------------

**COMMENTS FOR OFFICIAL USE ONLY**

20. COMMENTS FOR OFFICIAL USE ONLY
------------------------------------

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**HAZARDOUS WASTE PERMIT APPLICATION**  
 Consolidated Permit Program  
 (This information is required under Section 3006 of RCRA.)

**EPA** **RCRA**

**REPORT NUMBER**  
 E C T D 0 0 1 1 6 4 5 9 9 1

**FOR OFFICIAL USE ONLY**

APPLICATION APPROVED	DATE RECEIVED (yr. mo. & day)	COMMENTS

**II. FIRST OR REVISED APPLICATION**

Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

**A. FIRST APPLICATION** (place an "X" below and provide the appropriate date)

☐ 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

☐ 2. NEW FACILITY (Complete item below.)

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)

FOR NEW FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN

**B. REVISED APPLICATION** (place an "X" below and complete Item I above)

☒ 1. FACILITY HAS INTERIM STATUS Presently for wastes as of 3/85

☐ 2. FACILITY HAS A RCRA PERMIT

**III. PROCESSES - CODES AND DESIGN CAPACITIES**

**A. PROCESS CODE** - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (Item III-C).

**B. PROCESS DESIGN CAPACITY** - For each code entered in column A enter the capacity of the process.

1. AMOUNT - Enter the amount.

2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
<b>Storage:</b>			<b>Treatment:</b>		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS		T04	GALLONS PER DAY OR LITERS PER DAY
<b>Disposal:</b>			OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)		
JECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			

UNIT OF MEASURE	CODE	UNIT OF MEASURE	CODE	UNIT OF MEASURE	CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

**EXAMPLE FOR COMPLETING ITEM III** (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)				1. AMOUNT	2. UNIT OF MEASURE (enter code)	
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	40,000 (Wastes)	G		7				
	0 1	96,800 (Reclaim)*	G		8				
3	S 0 2	29,000 (Reclaim)*	G		9				
4		*Recyclable Materials			10				

This page submitted only to revise Item 2 from 99,000 G to 96,800 G. All else from Revision 3/19/85 remains the same.

Chem D. H. 5/22/85

566-5712

EPA I.D. NUMBER (enter from page 1)										FOR OFFICIAL USE ONLY																				
W 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26										W 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26																				
IV. DESCRIPTION OF HAZARDOUS WASTES (continued)																														
A. EPA HAZARD. WASTE NO. (enter code)		B. ESTIMATED ANNUAL QUANTITY OF WASTE		C. UNIT OF MEASURE (enter code)		D. PROCESSES																								
						1. PROCESS CODES (enter)																								
						2. PROCESS DESCRIPTION (if a code is not entered in D(1))																								
1																														
2	F 0 0 6		250,000		P	S 0 1																								
3	D 0 0 1		700,000		P	S 0 1																								
4	D 0 0 2		100,000		P	S 0 1																								
5	D 0 0 3		7000		P	S 0 1																								
6	D 0 0 7		2000		P	S 0 1																								
7	D 0 0 8		10,000		P	S 0 1																								
8	F 0 0 1		10,000		P	S 0 1																								
9																														
10																														
11	D 0 0 2		17,551,600		P	S 0 1 S 0 2																								
12	D 0 0 4		Included in the above																											
13	D 0 0 8		Included in the above																											
14	D 0 0 8		900,000		P	S 0 1																								
15	D 0 0 7		10,000		P	S 0 1																								
16																														
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25																														
26																														

Revised November 5, 1987

Cherrie D. Gillis  
Compliance Administrator

DESCRIPTION OF HAZARDOUS WASTES (continued)  
 USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. (enter from page 1)													
F	C	T	D	0	0	1	1	6	4	5	9	T/A	C
1	2	3	4	5	6	7	8	9	10	11	12	13	14

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)						LONGITUDE (degrees, minutes, & seconds)					
	4	1	3	4	3		7	3	0	3	2
65	66	67	68	69	70	72	73	74	75	76	77

VIII. FACILITY OWNER

☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER										2. PHONE NO. (area code & no.)									
E										35 36 38 39 41 42									
3. STREET OR P.O. BOX										4. CITY OR TOWN									
F										G									
12 13 14 15 16 17 18 19 20 21										40 41 42 43 44 45 46 47 48 49									

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
Reginald H. Post	<i>Reginald H. Post</i>	3-14-85

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

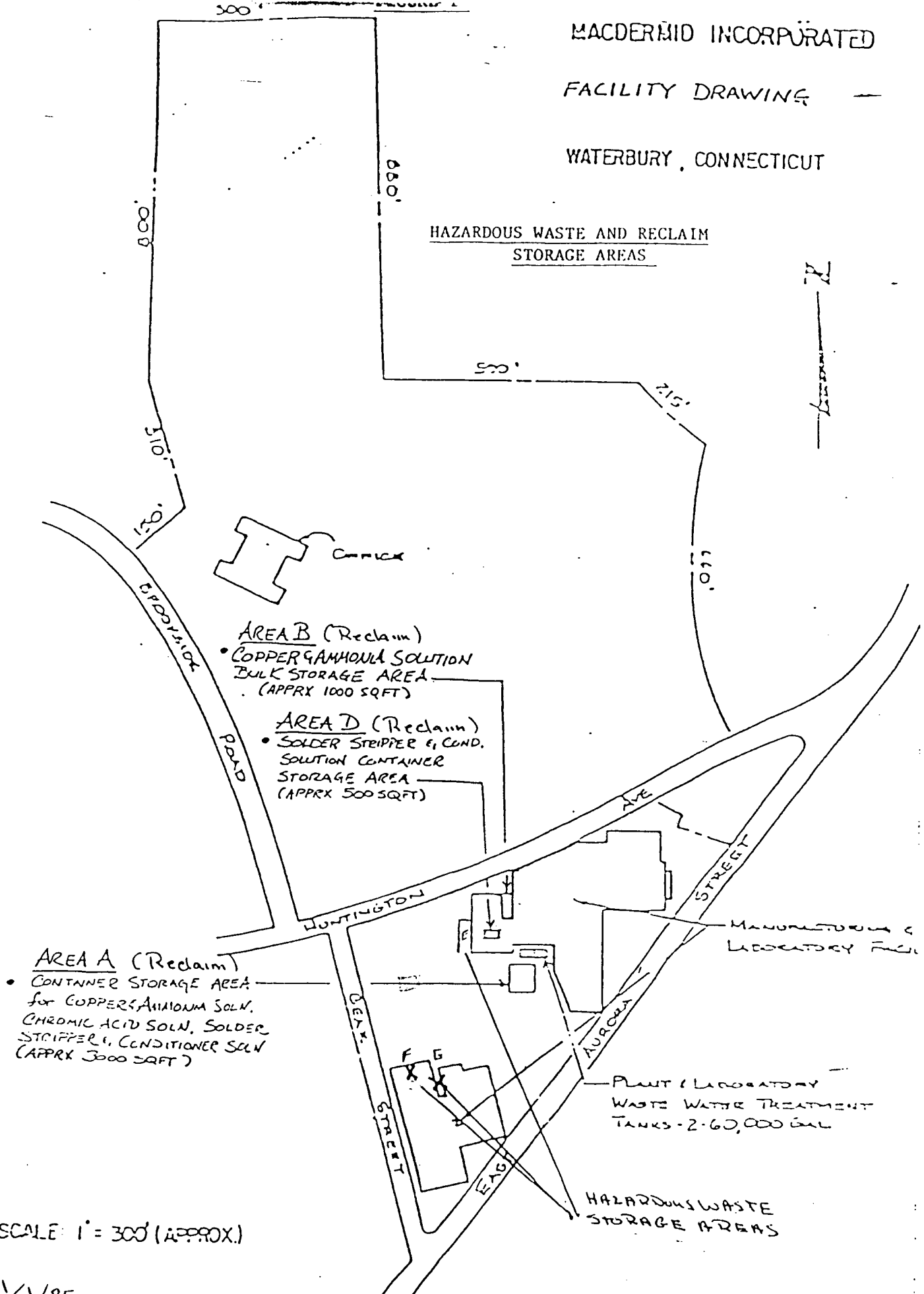
A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
Reginald H. Post	<i>Reginald H. Post</i>	3-19-85

MACDERMID INCORPORATED

FACILITY DRAWING

WATERBURY, CONNECTICUT

HAZARDOUS WASTE AND RECLAIM  
STORAGE AREAS





APPENDIX B

Revised Part A Application

FORM 1 GENERAL		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program (Read the "General Instructions" before starting.)		I. EPA I.D. NUMBER	
EPA				F C T D 0 0 1 1 6 4 5 9 9	
I. EPA I.D. NUMBER					
II. FACILITY NAME					
V. FACILITY MAILING ADDRESS					
VI. FACILITY LOCATION					
PLEASE PLACE LABEL IN THIS SPACE				GENERAL INSTRUCTIONS	
				If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.	

## II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X'			SPECIFIC QUESTIONS	MARK 'X'		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		X		D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

## III. NAME OF FACILITY

1	SKIP	MACDERMID INCORPORATED
---	------	------------------------

## IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)		B. PHONE (area code & no.)		
2	LANDON CARL E. VICE PRES. AMID	203	575	5700

## V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX		B. CITY OR TOWN		C. STATE	D. ZIP CODE
3	526 HUNTINGDON AVENUE	4	WATERBURY	CT	06708

## VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER		B. COUNTY NAME		C. CITY OR TOWN		D. STATE	E. ZIP CODE	F. COUNTY CODE (if known)
5	526 HUNTINGDON AVENUE	NEW HAVEN	6	WATERBURY	CT	06708		

**VII. SIC CODES (4-digit, in order of priority)**

<b>A. FIRST</b>				<b>B. SECOND</b>			
C	7	28	99	(specify)	Chemical Preparations	C	7
15	16	17	18			15	16
<b>C. THIRD</b>				<b>D. FOURTH</b>			
C	7			(specify)		C	7
15	16	17	18			15	16

**VIII. OPERATOR INFORMATION**

<b>A. NAME</b>										<b>B. Is the name listed in Item VIII-A also the owner?</b>	
C	8	MACDERMID INCORPORATED								<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 66	
<b>C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)</b>										<b>D. PHONE (area code &amp; no.)</b>	
F = FEDERAL    M = PUBLIC (other than federal or state) S = STATE      O = OTHER (specify) P = PRIVATE										C A    2 03    5 75    5 700 15    16 - 18    19 - 21    22 - 24	
<b>E. STREET OR P.O. BOX</b>											
526 HUNTINGDON AVENUE											
<b>F. CITY OR TOWN</b>										<b>G. STATE</b>	
C	B	WATERBURY								CT	
15	16									41 42	
<b>H. ZIP CODE</b>										<b>IX. INDIAN LAND</b>	
06708										Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 52	
										47 - 51	

**X. EXISTING ENVIRONMENTAL PERMITS**

<b>A. NPDES (Discharges to Surface Water)</b>										<b>D. PSD (Air Emissions from Proposed Sources)</b>											
C	9	N	CT0024988								C	9	P								
15	16	17									15	16	17								
<b>B. UIC (Underground Injection of Fluids)</b>										<b>E. OTHER (specify)</b>											
C	9	U									C	9		CT Intermittent Storage Permit							
15	16	17									15	16	17								
<b>C. RCRA (Hazardous Wastes)</b>										<b>E. OTHER (specify)</b>											
C	9										C	9		CT Waste Hauler Permit							
15	16	17									15	16	17								

**XI. MAP**

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

**XII. NATURE OF BUSINESS (provide a brief description)**

The principle business of MacDermid, Inc. is the manufacture and sale of process chemicals to the metal finishing, plating on plastics, electronics, micro electronics and surface treatment industries. MacDermid also provides a recycling service for certain specialty chemical products returned by their customers. Through such manufacturing and recycling operations, hazardous wastes are generated and stored temporarily on-site. Ultimately, all wastes are either: recycled on-site for resale to customers; or shipped off-site by certified waste haulers and disposed of at permitted hazardous waste disposal facilities.

**XIII. CERTIFICATION (see Instructions)**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

<b>A. NAME &amp; OFFICIAL TITLE (type or print)</b>		<b>B. SIGNATURE</b>		<b>C. DATE SIGNED</b>	
Carl E. Landon		Carl E. Landon		11/8/88	

**COMMENTS FOR OFFICIAL USE ONLY**

C					
15	16	17	18	19	20

FOR OFFICIAL USE ONLY									
APPLICATION APPROVED		DATE RECEIVED (yr., mo., & day)		COMMENTS					
23		24	-	29					

Place an "X" in the appropriate box in A or B below (*mark one box only*) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)

<input checked="checked" type="checkbox"/> 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)	<input type="checkbox"/> 2. NEW FACILITY (Complete item below.)
21	21

FOR NEW FACILITIES

C	YR.	MO.	DAY	FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)	YR.	MO.	DAY	PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN
8	7 2	0 5	0 1					
15	73 74	75 76	77 78		73 74	75 76	77 78	

**B. REVISED APPLICATION** (place an "X" below and complete Item I above)

☒ 1. FACILITY HAS INTERIM STATUS ☐ 2. FACILITY HAS A RCRA PERMIT

A. **PROCESS CODE** — Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (*including its design capacity*) in the space provided on the form (*Item III-C*).

**B. PROCESS DESIGN CAPACITY** — For each code entered in column A enter the capacity of the process.

1. **AMOUNT** — Enter the amount.

2. **UNIT OF MEASURE** — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PRO- CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO- CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
<b>Storage:</b>			<b>Treatment:</b>		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS		T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS	INCINERATOR		
<b>Disposal:</b>			<b>OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)</b>		
INJECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
	D81	ACRES OR HECTARES			
LAND APPLICATION	D82	GALLONS PER DAY OR LITERS PER DAY			
OCEAN DISPOSAL	D83	GALLONS OR LITERS		T04	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT					
UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

**EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below):** A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

C										T/A C										1																																																																															
DUP																																																																																																			
B. PROCESS DESIGN CAPACITY										FOR OFFICIAL USE ONLY										B. PROCESS DESIGN CAPACITY										FOR OFFICIAL USE ONLY																																																																					
A. PROCESS CODE (from list above)										1. AMOUNT (specify)										2. UNIT OF MEASURE (enter code)										A. PROCESS CODE (from list above)										1. AMOUNT										2. UNIT OF MEASURE (enter code)										FOR OFFICIAL USE ONLY																																							
LINE NUMBER										16 - 18 19										27										28										29 - 32										LINE NUMBER										16 - 18 19										27										28										29 - 32									
X-1	S	O	2							600										G										5																																																																					
X-2	T	O	3							20										E										6																																																																					
1	S	O	1							84,590										G										7																																																																					
-	S	O	1							260 (Roll-Off)										Y										8																																																																					
3	S	O	2							29,000										G										9																																																																					
4																														10																																																																					
										16 - 18 19										27										28										29 - 32																				16 - 18 19										27										28										29 - 32									

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

#### IV. DESCRIPTION OF HAZARDOUS WASTES

**A. EPA HAZARDOUS WASTE NUMBER** — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

**B. ESTIMATED ANNUAL QUANTITY** — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

**C. UNIT OF MEASURE** — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

#### D. PROCESSES

**1. PROCESS CODES** — For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item II to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item II to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4 the line number and the additional code(s).

**2. PROCESS DESCRIPTION:** If a code is not listed for a process that will be used describe the process in the space provided on the form.

**NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER** — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
- Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

**EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below)** — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

EPA I.D. NUMBER (enter from page 1)													FOR OFFICIAL USE ONLY														
W	C	T	D	0	0	1	1	6	4	5	9	9	T/A	C	1	W	DUP				T/A	C	2	DUP			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

A. EPA HAZARD. WASTE NO. (enter code)					B. ESTIMATED ANNUAL QUANTITY OF WASTE					C. UNIT OF MEASURE (enter code)		D. PROCESSES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
												1. PROCESS CODES (enter)								2. PROCESS DESCRIPTION (if a code is not entered in D(1))																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
1					For Waste Material																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

**E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.**

EPA I.D. NO. (enter from page 1)															
S													T/A	C	
F	C	T	D	0	0	1	1	6	4	5	9	9		6	
1	2												13	14	15

**All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).**

All existing facilities must include photographs (*aerial or ground-level*) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (*see instructions for more detail*).

## LATITUDE (degrees, minutes, &amp; seconds)

4	1	3	4	3	9	6
65	66	67	68	69	70	71

LONGITUDE (degrees, minutes, &amp; seconds)

	7	3		0	3		2	2	5
72	-	74	73	74	77	-	79		

☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

**B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:**

1. NAME OF FACILITY'S LEGAL OWNER2. PHONE NO. (area code & no.)[illegible]

**3. STREET OR P.O. BOX**


**4. CITY OR TOWN**

**5. ST.**


## 6. ZIP CODE

[illegible]

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
Carl E. Landon		11/8/88

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

<p>A. NAME (print or type)</p> <p>Carl E. Landon</p>	<p>B. SIGNATURE</p> 	<p>C. DATE SIGNED</p> <p>u/e/88</p>
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V. FACILITY DRAWING (see page 4)

See Figure 2.1 of this Permit Application.



APPENDIX C

First Time Customer's Instructions for  
Sampling/Transporting Representative Samples

### SAMPLE COLLECTION

COLLECT, PACKAGE AND LABEL FOR SHIPMENT AND ANALYSIS ONE LITER (ABOUT ONE QUART) REPRESENTATIVE SAMPLE OF THE WASTE TO BE CONSIDERED. THIS SAMPLE MUST BE COLLECTED IN ACCORDANCE WITH "TEST METHODS FOR THE EVALUATION OF SOLID WASTE, PHYSICAL/CHEMICAL METHODS", SW846, USEPA, OFFICE OF SOLID WASTE, WASHINGTON, DC, 20460. FILL TO APPROXIMATELY 50-75% OF CAPACITY TO ALLOW FOR EXPANSION DURING TRANSPORTATION. AN IDENTIFICATION LABEL MUST BE ATTACHED TO THE SAMPLE AND CONTAIN: GENERATOR NAME, WASTE NAME, GENERATOR'S EPA I.D. NUMBER, AND SAMPLING DATE.

IF THE WASTE IS A HAZARDOUS MATERIAL, THE SAMPLE MUST BE PACKAGED AND SHIPPED IN ACCORDANCE WITH USDOT REGULATIONS FOR THE WASTE MATERIAL (49 CFR). IF SHIPPING VIA UNITED PARCEL, CONSULT ITS "GUIDE FOR SHIPPING HAZARDOUS MATERIALS VIA UPS". ANY WASTE SAMPLE NOT SHIPPED IN CONFORMANCE WITH THE SPECIFIED INSTRUCTIONS MAY BE DISPOSED OF IMMEDIATELY.

## DEFINITIONS: GENERATOR CERTIFICATION

THE FOLLOWING INFORMATION IS REQUIRED FOR ALL WASTE TO BE CONSIDERED FOR TRANSPORTATION AND STORAGE. IT IS USED TO DETERMINE THAT THE WASTE MAY BE TRANSPORTED AND STORED IN A LEGAL, SAFE AND ENVIRONMENTALLY SOUND MANNER. THIS INFORMATION WILL BE MAINTAINED IN STRICT CONFIDENCE. ANSWERS MUST BE MADE TO ALL QUESTIONS AND MUST BE COMPLETED IN INK. RESPONSES OF "NONE" SHOULD BE MADE IF APPROPRIATE. MOST ITEMS REQUIRED ARE SELF-EXPLANATORY. OTHER ITEMS NEED DEFINITION OR INSTRUCTION AS FOLLOWS.

### I - GENERAL INFORMATION

USEPA ID - For the facility generating the waste. STATE ID - If applicable.

TECHNICAL CONTACT - A person who could give additional information about the waste if needed.

WASTE NAME - A name which will be generally descriptive of its major chemical composition.

PROCESS GENERATING WASTE - Specific process or source which generates the waste.

### II - PHYSICAL CHARACTERISTICS OF WASTE

ODOR - If present, describe as well as possible (e.g., solvent, acrid, sweet, etc).

PHYSICAL STATE - check as many as apply.

FREE LIQUID - As packaged for shipment, estimate percent of volume.

pH - Indicate for liquid or liquid portions of waste.

SPECIFIC GRAVITY - The weight of the waste in terms of the weight of an equal volume of water.

FLASH POINT - A value attained using the appropriate testing method as set forth in 40 CFR 261.

### III - OTHER COMPONENTS

If the data for this PART (or any other PART) were obtained from a laboratory analysis of the waste, please attach the analytical method used.

#### IV - SHIPPING INFORMATION

**DOT HAZARDOUS MATERIAL** - Is the waste a USDOT hazardous material as defined in 49 CFR 172.101? If YES, enter the SHIPPING NAME, HAZARD CLASS, DOT ID NUMBER, and R.Q. (Reportable Quantity) as defined in 40 CFR 302. To assist you, we recommend the following shipping names for the recyclable products: See attachment A.

**ANTICIPATED VOLUME** - Gallons and cubic yards are emphasized as units of volume measurement. If another unit of measure must be used, indicate that unit.

**FREQUENCY** - The period during which the above ANTICIPATED VOLUME will be generated.

#### V - HAZARDOUS CHARACTERISTICS

**REACTIVITY - PYROPHORIC:** will ignite spontaneously in air at below 130°F (54.4°C). **SHOCK SENSITIVE;** normally unstable and readily undergoes violent change without detonating. **EXPLOSIVE;** capable of detonation or explosive reaction if subjected to a strong initiating source or if heated under confinement; or a forbidden explosive as defined in 49 CFR 173.53, or a Class B explosive as defined in 49 CFR 173.88. **WATER REACTIVE;** reacts violently with water, or forms potentially explosive mixtures with water, or when mixed with water forms toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment. **OTHER;** indications of other reactive characteristics must be included (e.g., auto-polymerization, peroxide-forming, etc).

**OTHER HAZARDOUS CHARACTERISTICS** - Complete if the waste contains or has ever contained any component which is considered to be any of the following. **RADIOACTIVE;** emits alpha, beta or gamma radiation above normal background levels. **ETIOLOGICAL;** a viable micro-organism or its toxin which causes or may cause human disease.

**PESTICIDE MANUFACTURING WASTE;** the waste was produced from a pesticide or herbicide manufacturing process; or, the waste is or contains waste pesticide or herbicide. **OTHER;** list any known hazardous characteristics and elaborate in PART A (e.g., carcinogenic, teratogenic, mutagenic).

**USEPA HAZARDOUS WASTE** - As defined according to RCRA in 40 CFR 261. If yes, enter applicable USEPA CODES.

**STATE HAZARDOUS MATERIAL** - Indicate whether the waste is regulated as a hazardous waste in your state. If yes, then complete the STATE CODES.

#### SIGNATURE

The generator of the waste or the generator's agent must sign and date the Generator's Certification.

# Waste Analysis Plan

To Our Customers:

To better serve you, our customer, in the area of recycling responsibility involving our recycled products, MacDermid Inc. (MacDermid) is asking for your cooperation. We are updating our Waste Generator Certifications as part of a periodic reassessment of materials received by MacDermid for reclamation.

To protect you and MacDermid with the tightening of Federal and state law and to maintain proper record keeping under RCRA regulations under 40CFR Section 262.11 Hazardous Waste Determination, CFR40 Section 264.12 Required Notices and CFR40 Section 264.13 General Waste Analysis, we are implementing the following program:

1. Written Agreement. A written Agreement between you and MacDermid is enclosed showing warranties, indemnifications, etc. Please read this carefully and sign it as indicated.
2. Return Parameters. Attached to the Agreement is our schedule showing return parameters for recycling as well as our Generator Profile Sheet which should be completed based on the given parameters. Although some of our customers may have already completed these sheets, we would appreciate your completing them again as an update.
3. Customer Waste Analysis. A one quart sample is requested for each type of recyclable material from our customer. This will be used as a "fingerprint" representation of your return material. Waste Analysis will be kept on file as per RCRA regulations.

If you have any questions, please contact your MacDermid sales representative.

Sincerely,

Michael A. Pfaff  
Vice President Marketing

MAP:smb

Enclosure

## AGREEMENT

This Agreement, upon receipt by MacDermid Incorporated (MacDermid) Waterbury, CT, of your acceptance as evidenced by your signature, shall be the Agreement between MacDermid and \_\_\_\_\_

\_\_\_\_\_ (Company) with respect to the following provisions set below:

1. **WASTE** - This term as used herein refers to hazardous or non-hazardous material as authorized by MacDermid for recycling. See attached Schedule \_\_\_\_.
2. **MACDERMID WARRANTY.** MacDermid shall obtain all permits, licenses and other forms of documentation required in order to comply with all existing laws, ordinances and regulations of the United States and of any state, county, township or municipal sub-division thereof, or other governmental agency which are applicable to the removal of Waste.
3. **MACDERMID INDEMNIFICATION** - Following loading and departure from Company's plant, if MacDermid provides transportation, or following delivery F.O.B. MacDermid's facility, if Company provides transportation, except as provided in Company Indemnification below, Company shall be relieved of responsibility for and MacDermid shall become solely responsible for any and all loss, damage or injury to persons or property and MacDermid shall indemnify and hold harmless Company from any and all liability, damages, costs, claims, demands, and expenses of whatever type or nature, including, but not limited to, pollution or other damage, which shall be caused by or arise out of the Waste.
4. **COMPANY WARRANTY** - Company hereby represents and warrants that the Waste loaded and transported under this Agreement shall be the Waste defined in Schedule \_\_\_\_, attached hereto and made a part hereof, and has been thoroughly characterized on the Generator Certification submitted to and approved by MacDermid. Company agrees to prepare and execute a MacDermid Generator Certification for each type of Waste, including any Waste with process changes that could significantly alter its composition and/or chemical/physical properties. Company further represents and warrants that such Waste shall be prepared for shipment and packaged in containers specified by MacDermid, in accordance with applicable regulations of the United States Department of Transportation, Environmental Protection Agency and/or any federal, state, and/or local agency having jurisdiction. Company agrees to be responsible for properly loading packaged Waste on MacDermid's trailers if MacDermid is providing transportation. (See Schedule \_\_\_\_.)

Failure to comply with this provision will affect MacDermid Indemnification.

5. **COMPANY INDEMNIFICATION** - Company shall be solely responsible for and indemnify and hold harmless MacDermid against any and all liability, damages, costs, claims, demands, and expenses of any type or nature whatsoever resulting from the acts and/or omissions of Company and/or its agents, employees, contractors, until departure of Waste from Company's plant, if MacDermid provides transportation or, if Company provides transportation, until delivery F.O.B. MacDermid's facility.

In addition to the above, Company agrees to indemnify and hold harmless MacDermid from any and all loss, damages, including damage to equipment, claims, suits, or costs which shall arise out of any injury to any person or persons or damage to any property (including the person or property of Company or its employees) caused by or resulting in any way from Company's failure to comply with Company's Warranty concerning the Waste.

6. **TITLE** - Following proper loading and departure from Company's plant, if MacDermid provides transportation or, following delivery F.O.B. MacDermid's facility, if Company provides transportation, MacDermid shall take title, responsibility and risk of loss. However, title, responsibility, risk of loss and all other incidents of ownership to non-conforming Waste as determined solely by MacDermid, shall not be deemed to have transferred to MacDermid.

7. **MACDERMID REJECTION** - Company agrees that MacDermid, upon notice to Company, has the absolute and unqualified right to reject any shipment of Waste not in conformity with Schedule \_\_\_\_ supplied to Company and approved by MacDermid.

Further, Company agrees that MacDermid reserves the right to reject any shipment of Waste if acceptance by MacDermid of said shipment of Waste would result in violation of any law, statute, regulation, ordinance, permit, license or order of the United States or of any state, county, municipality or other governmental agency, department or commission.

8. **PAYMENT** - MacDermid shall invoice Company for the transportation and waste disposal of Waste at the rates and terms set forth by Schedule \_\_\_\_ attached hereto and made part hereof. MacDermid shall add an amount equal to one and one-half percent (1-1/2%) or the maximum legally permissible amount to invoices which remain unpaid for more than thirty (30) days after date of invoice. Additional like charges will be made for each subsequent thirty (30) day period that such invoice remains unpaid.

**PAYMENT - Rejected Material.** In addition to the provisions of Company Indemnification above, the Company shall, upon failure to comply with Company Warranty regarding the Waste, as determined solely by MacDermid, pay a fee to MacDermid as stated in Schedule \_\_\_\_.

9. **TERM** - MacDermid or Company may terminate this Agreement at any time upon thirty (30) days prior written notice.

10. **EFFECT** - This agreement shall be binding upon and inure to the benefit of MacDermid, its employees, agents, successors and assigns, and Company, its employees, agents, successors and assigns.
11. **APPLICABLE LAW** - This Agreement shall be governed by and construed in accordance with the laws of Connecticut.
12. **NOTICES** - Any notice required or permitted to be given hereunder shall be given when adequately deposited in the U.S. Mail, postage prepaid.
13. **CONSTRUCTION** - Captions are included herein for convenience and for reference only and shall not be considered in construing this Agreement. The Agreement is for the sole and exclusive benefit of MacDermid, Company and their respective employees, agents, successors and assigns. Nothing contained herein shall constitute an admission or a waiver of any defense of any of them in any proceeding or action brought by any other person or governmental agency. There are no third party beneficiaries of this Agreement except as herein stated.
14. **FORCE MAJEURE** - Delays or failure of either party in the performance of its required obligations shall be excused if caused by circumstances, said circumstances unrelated to the Waste, beyond the reasonable control of the party affected, including, but not limited to, acts of God, strikes, fire, flood, windstorm, explosion, riot, war, sabotage, action or request of governmental authority, accident, inability to obtain material, equipment or transportation, provided that a prompt notice of such delay is given and the parties shall be diligent in attempting to remove such cause(s).

All previous representations, including, but not limited to, proposal(s), purchase order(s) and/or invoice(s), either written or oral, are hereby annulled and superseded. No modification of this Agreement shall be effective unless in writing and executed by MacDermid and Company.

ACCEPTED this \_\_\_\_ day of \_\_\_\_\_, 1981.      MACDERMID INCORPORATED

\_\_\_\_\_. (Company)      BY: \_\_\_\_\_

Address:

Address:

Customer EPA ID No. \_\_\_\_\_

\*This information may be made available to State or Federal Environmental Enforcement Agencies if requested by those agencies.



MACDERMID INCORPORATED  
GENERATOR CERTIFICATION

For Schedule: \_\_\_\_\_

MACDERMID INCORPORATED  
Waterbury, Connecticut  
EPA NO. CTD001164599  
Interim Status: Storage Facility

MACDERMID INCORPORATED  
Ferndale, Michigan  
EPA NO. MID005338371  
Interim Status: Storage Facility

The Certification is to be completed by the Generator for each type of recyclable material shipped to Waterbury, CT or Ferndale, MI. The Certification is issued on a one-time basis\*\*(\*\*If components of the original Certification change, the customer must complete a new Certification and submit to MacDermid for approval. APPROVAL MUST BE GIVEN PRIOR TO FIRST SHIPMENT.)

A. Generator Name: \_\_\_\_\_ B. Waste Description: \_\_\_\_\_  
Address: \_\_\_\_\_  
Technical Contact: \_\_\_\_\_ EPA Waste No.: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_ CT Regulated Waste No.: \_\_\_\_\_  
Facility EPA ID No.: \_\_\_\_\_

C. Typical Characteristics of Waste If characteristics differ, please state below:  
Color: \_\_\_\_\_ Sp. Gravity: \_\_\_\_\_  
Odor: \_\_\_\_\_ Flash Point: \_\_\_\_\_  
Physical State @ 70°F: \_\_\_\_\_ pH: \_\_\_\_\_  
Layers: \_\_\_\_\_

D. Check Items Suspected to be present E. Other Components

	No	Yes		No	Yes		No	Yes
Antimony	—	—	Selenium	—	—	Chromium-Hex	—	—
Arsenic	—	—	Silver	—	—	Copper	—	—
Beryllium	—	—	Thallium	—	—	Iron	—	—
Cadmium	—	—	Phenols	—	—	Nickel	—	—
Lead	—	—	PCB's	—	—	Tin	—	—
Mercury	—	—	Dioxins	—	—	Zinc	—	—
Herbicides	—	—	Pesticides	—	—	Cyanide	—	—
Barium	—	—				Fluoride	—	—

F. Typical Chemical Composition G. Anticipated Volume

_____ %	If other, state below:	Bulk / / _____ /mo.	_____ /yr.
_____ %	_____ %	Drums / / _____ /mo.	_____ /yr.
_____ %	_____ %		
_____ %	_____ %		
_____ %	_____ %		
_____ %	_____ %		
_____ %	_____ %		

I certify that all information submitted in this and any attached documents is complete, accurate, and that all known or suspected hazards have been disclosed.

Authorized Signature

Title

Date

APPENDIX D

Spot Test Procedures

**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID #** 100853

**Facility Name:** MACDERMID INC

**Facility ID#:** CTD001164599

**Phase Classification:** R-1B

**Purpose of Target Sheet:**

☐ **Oversized (in Site File)**      ☐ **Oversized (in Map Drawer)**

☐ **Page(s) Missing (Please Specify Below)**

☐ **Privileged**                      ☒ **Other (Provide  
Purpose Below)**

**CONFIDENTIAL BUSINESS INFORMATION**

**Description of Oversized Material, if applicable:**

\_\_\_\_\_  
\_\_\_\_\_

☐ **Map**      ☐ **Photograph**      ☒ **Other (Specify Below)**

**CONFIDENTIAL BUSINESS INFORMATION**

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☐ **Map**      ☐ **Photograph**      ☒ **Other (Specify Below)**

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APPENDIX E  
Closure Cost Assurance





**MacDermid**  
INCORPORATED

50 BROOKSIDE ROAD - WATERBURY, CONNECTICUT 06708 - TELEPHONE (203) 575-5700 - TELEX 4436011

October 27, 1988

Mr. George Dews  
State of Connecticut  
Department of Environment Protection  
165 Capitol Avenue  
Hartford, CT 06106

Dear Mr. Dews:

I am the Treasurer of MacDermid, Inc., 50 Brookside Road, Waterbury, CT. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in Subpart H of 40 CFR Parts 264 and 265.

1. This firm is the owner of operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility:

<u>FACILITY NAME</u>	<u>TYPE OF FACILITY</u>	<u>CLOSURE COST ESTIMATE</u>
MacDermid, Inc. 526 Huntingdon Ave. Waterbury, Connecticut	Waste Storage Facility for Hazardous Waste	\$354,950

1. This firm guarantees, through the corporate guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure or post-closure care of the following facilities owned or operated by subsidiaries of this firm. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility:

None

3. In States where DEP is not administering the financial requirements of Subpart H of 40 CFR 264 and 265, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Part 264 and 265. The current closure and/or post-closure cost estimates covered by such a test shown for each facility:

None

4. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated to DEP through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility:

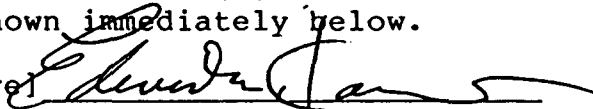
None

This firm is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

This fiscal year of this firm ends on March 31, 1988. The figures for the following items attached which are marked with an asterisk, are derived from this firm's independently audited, year-end financial statements and footnotes for the latest completed fiscal year, ended March 31, 1988.

I hereby certify that the wording of this letter is substantially equivalent to the wording specified on 40 CFR 264.151 (f) as such regulations were constituted on the date shown immediately below.

[Signature]



[Name] Edwin M. Kania

[Title] Treasurer

[Date] October 27, 1988

ALTERNATIVE I

1.	Sum of current closure and post-closure estimates [total of <u>all</u> cost estimates shown in the four paragraphs above]	\$	<u>354,950</u>
*2.	Total liabilities [if any portion of the closure or post-closure cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4]	\$	<u>48,598,000</u>
*3.	Tangible net worth	\$	<u>43,298,000</u>
*4.	Net worth	\$	<u>44,285,000</u>
*5.	Current assets	\$	<u>55,502,000</u>
*6.	Current liabilities	\$	<u>40,011,000</u>
*7.	Net working capital [line 5 minus line 6]	\$	<u>15,491,000</u>
*8.	The sum of net income plus depreciation, depletion, and amortization	\$	<u>11,069,000</u>
9.	Total assets in U.S. [required only if less than 90 percent of firm's assets are located in the U.S.]	\$	<u>52,813,000</u>
		<u>Yes</u>	<u>No</u>
10.	Is line 3 at least \$10 million?	<u>X</u>	<u>      </u>
11.	Is line 3 at least 6 times line 1?	<u>X</u>	<u>      </u>
12.	Is line 7 at least 6 times line 1?	<u>X</u>	<u>      </u>

\*Denotes figures derived from March 31, 1988 consolidated financial statements of MacDermid, Incorporated and subsidiaries.

ALTERNATIVE 1 [continued]

	<u>Yes</u>	<u>No</u>
13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14.	<u>      </u>	<u>  X  </u>
14. Is line 9 at least 6 times line 1?	<u>  X  </u>	<u>      </u>
15. Is line 2 divided by line 4 less than 2.0?	<u>  X  </u>	<u>      </u>
16. Is line 8 divided by line 2 greater than 0.1?	<u>  X  </u>	<u>      </u>
17. Is line 5 divided by line 6 greater than 1.5?	<u>      </u>	<u>  X  </u>

APPENDIX F

Coverage for Sudden Accidental Occurences

HAZARDOUS WASTE FACILITY CERTIFICATE  
OF LIABILITY INSURANCE

1. National Union Fire Insurance Company of Pittsburgh, PA (the "Insurer") of 70 Pine Street, New York, NY 10270 hereby certifies that it has issued liability insurance covering bodily injury and property damage to MacDermid, Inc. (the "Insured") of 50 Brookside Road, Waterbury, CT 06708 in connection with the Insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at:

MacDermid, Inc.  
526 Huntingdon Avenue  
Waterbury, CT 06708  
EPA I.D. #CTD 981062854

MacDermid, Inc.  
245 Freight Street  
Waterbury, CT 06720  
EPA I.D. #CTD 001164599

For "sudden and nonsudden accidental occurrences", the limits of liability are \$3,000,000 each occurrence and \$6,000,000 annual aggregate, exclusive of legal defense costs. The coverage is provided under Policy Number PLL5648704 issued on July 17, 1988. The effective date of said policy is July 17, 1988.

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:
  - (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.
  - (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the Insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).
  - (c) Whenever requested by the Commissioner of the Connecticut Environmental Protection, the Insurer agrees to furnish to the Commissioner an originally signed duplicate of the policy and all endorsements.
  - (d) Cancellation of the insurance, whether by the Insurer or the Insured, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Commissioner.

- (e) Any other written termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Commissioner.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j) as such regulation was constituted on the date first above written and that the Insurer is licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more states.

Kenneth Cornell, Manager  
Authorized Representative & Title

A handwritten signature in dark ink, appearing to read 'K. Cornell', is written over a horizontal line.

Name of Insurer: National Union Fire Insurance Company  
of Pittsburgh, PA

Address of Insurer: 70 Pine Street, New York, NY 10270



Peat Marwick

Certified Public Accountants

Peat Marwick Main & Co.

One Financial Plaza

Hartford, CT 06103

The Board of Directors  
MacDermid, Incorporated:

Under date of May 31, 1988, we have reported on the consolidated financial statements of MacDermid, Incorporated and subsidiaries as of March 31, 1988 and 1987 and for each of the years in the three-year period ended March 31, 1988, and rendered our unqualified opinion thereon. Our examinations of such financial statements were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

We have compared the financial data specified as having been derived from the March 31, 1988 consolidated financial statements of MacDermid, Incorporated and subsidiaries and set forth on pages three and four of the letter of October 27, 1988 from Edwin M. Kania, Treasurer of MacDermid, Incorporated, to the State of Connecticut Department of Environment Protection, with the amounts, (or compilation of amounts), included in the aforementioned consolidated financial statements and found them to be in agreement. In connection therewith, no matters came to our attention which caused us to believe that such data should be adjusted.

*Peat Marwick Main & Co.*

October 31, 1988



Member Firm of